

The Therapeutic Attachment Dyad: outcomes, engagement and coping in  
psychological therapy.

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# THESIS ABSTRACT

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**Background:** The relevance of attachment theory to clinical practice was posited by Bowlby in his seminal work on Attachment and Loss. He likened the role of the therapist to that of an attachment figure and proposed that the course and outcome of therapy would be affected by the internal working models (IWM's) of both the patient and the therapist. A small number of studies have explored the dyadic nature of attachment patterns within the therapeutic process although findings are inconclusive. **Objective:** The current study aimed to extend previous empirical evidence by exploring the application of attachment theory within a naturalistic clinical setting. Both patient and therapist attachment patterns were considered individually and as a therapeutic attachment dyad in relation to clinical outcomes following psychological therapy. It was hypothesised that patients reporting higher levels of attachment anxiety and avoidance would experience greater levels of psychological distress, less symptomatic relief and greater difficulty engaging with therapy. It was also hypothesised that patient and therapist attachment patterns would interact to moderate the trajectory of psychological therapy. A secondary aim of the study was to test the relationship between attachment dimensions and dispositional coping style within a clinical psychology population. A systematic review of the literature exploring attachment patterns and coping styles was also conducted. **Results:** Findings of the systematic review were suggestive of a relationship between attachment style and coping style that were consistent with theoretically derived assumptions. The results of the current empirical study lend support to the role of individual attachment patterns in coping and clinical outcomes, as well supporting the idea that therapist attachment can affect clinical outcomes through therapeutic engagement. **Conclusion:** The clinical application of attachment theory provides an interesting perspective on how services can best adapt to meet those most in need, although further research is required.

**Keywords:** Attachment, engagement, coping, therapy, outcomes

# 1. SYSTEMATIC REVIEW

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## Title

The Relationship Between Adult Attachment Style and Coping Response:

A systematic review

## 1.1 Abstract<sup>1</sup>

**Background.** Bowlby proposed that attachment theory provides an organising framework from which we can make predictions about individual differences in response to real or perceived threat across the lifespan. This is thought to have implications for the cognitive and behavioural coping mechanisms employed by individuals and the consequences this has for affect regulation and long-term psychological wellbeing. This is relevant to understanding the psychological mechanisms that contribute to the development of psychopathology and the potential for recovery. Research that considers the relationship between attachment style and coping strategies has not been systematically reviewed. **Method.** A systematic literature search was carried out to retrieve studies that considered the relationship between attachment style and coping strategies using electronic databases. Studies were selected on the basis that attachment was considered across categories or dimensions. Quality of studies was critically appraised using a checklist informed by CRD and SIGN guidelines. **Results.** A methodologically diverse sample of eleven studies met the inclusion criteria for review. **Conclusion.** Findings were suggestive of a relationship between attachment style and coping strategy that is consistent with theoretical underpinnings. Differences in conceptualising attachment and methodological quality limited the conclusions that could be drawn and indicated the need for further investigation.

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<sup>1</sup> Manuscript prepared according to author guidelines provided for *Clinical Psychology Review* (see Appendix vi)

## 1.2 Introduction

Attachment Theory (Bowlby, 1969, 1973, 1980) has received considerable attention in the pursuit of understanding individual differences in psychological processes across the lifespan. In his classic trilogy, *Attachment and Loss*, Bowlby proposes an organizing framework from which predictions can be made about differential responses to threat and the potential implications this may have for interpersonal development and psychological wellbeing. Many strands of attachment research are concerned with establishing the underlying mechanisms that predispose certain individuals to developing psychopathology when others do not (DeFronzo et. al., 2001). Coping is considered to be one such mechanism whereby the cognitive and behavioural strategies that an individual employs to manage threat, will have consequences for subjective level of distress experienced and the potential for developing psychopathology. The current study aims to firstly provide a theoretical context for understanding the relationship between attachment style and coping strategies before systematically reviewing the literature that has explored this relationship over the past 28 years.

### 1.2.1 Attachment Theory – Development of a system for regulating distress

Bowlby conceptualised the attachment system's primary function as distress regulation. He delineated different attachment related strategies of affect regulation stemming from different patterns of social interactions with significant others (attachment figures). He argued that infants are born with a set of behaviours (attachment behaviours), which are activated in the presence of perceived threat, in a bid to maintain proximity to an attachment figure. Achieved proximity to an

attachment figure then restores a sense of safety and permits deactivation of the attachment system. This has been labelled the *primary attachment strategy* (Main, 1990).

### *Attachment Security*

Fundamental to the development of the attachment system is the responsiveness and sensitivity of the attachment figure to the child's attachment behaviour. It is thought that this interpersonal process provides (i) a context for the child's understanding of emotional experiences and (ii) a set of cognitive appraisals concerning, the availability and reliability of the attachment figure as a strategy for relieving distress and, the effectiveness of one's own behaviour in dealing with the threat. When an infant's attachment figure is available, sensitive and responsive to proximity seeking behaviour, *attachment security* is established and proximity seeking is reinforced as an effective strategy. Through repeated reinforcement a system of positive expectations about others availability and the self as competent and valued are formed. These are what Bowlby describes as Internal Working Models (IWM's); cognitive appraisals of the self, *models of self*, and of others, *models of others*.

### *Attachment Insecurity*

When the primary attachment strategy is unsuccessful and proximity seeking behaviours do not lead to sufficient affect regulation, the infant develops a *secondary attachment strategy*, which signifies *attachment insecurity*. These strategies evolve in response to the emotional sequelae of the attachment figure's unavailability or inability to regulate distress. This takes place in the form of *hyperactivation* or *deactivation* (Cassidy & Kobak, 1988) of the attachment behavioural system to

ensure proximity to the attachment figure who is unable to regulate the distress of their child (Main 1990; Mikulincer & Shaver, 2003).

A deactivating strategy is likely to arise when an attachment figure responds to a child's proximity seeking in a rejecting or punishing way. This does not permit regulation of distress and the child exists in a state of emotional over arousal (Sroufe & Waters, 1977). In order to adapt to the needs of the attachment figure and maintain proximity, the child learns to over-regulate affect and its expression, and overcome the need for connectedness to the attachment figure.

A hyperactivating strategy evolves in response to an attachment figure that is inconsistent in their availability and ability to reduce distress. The child must amplify their attachment behaviour in a bid to ensure a response from the attachment figure, which often may not deactivate the attachment system. The child learns that help is unpredictable and that to get it one must express distress at a heightened level over a period of time. As a result the attachment system exists in constant activation through the preoccupation with emotional experience and the perceived unavailability of attachment figures.

In the absence of one adaptive attachment strategy an oscillation between hyperactivation and deactivation can occur. This is a pattern observed in children who seek proximity from an attachment figure who is also the source of threat and there is a conflicting drive towards proximity seeking and avoidance.

It is thought that over time these patterns of attachment behaviour undergo a broaden and build process through repeated interpersonal encounters (Mikulincer & Shaver, 2003) and endure into adulthood as an operating system. Evidence of this comes

from longitudinal research that has found that early infant attachment is predictive of attachment style in adulthood (Seiffge-Krenke, 2006).

### 1.2.2 Conceptualising Attachment Style

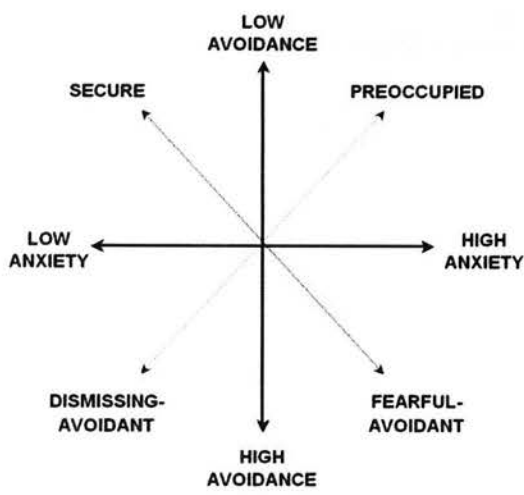
Mary Ainsworth operationalised Bowlby's theory of attachment in a groundbreaking study that sought to classify the attachment strategy of young children when placed in a threatening situation (Ainsworth, Blehar, Waters and Walls, 1978). From this a tripartite typology was defined; secure, anxious-avoidant (deactivating) and anxious-ambivalent (hyperactivating) which was adopted by adult attachment theorists Hazen and Shaver (1987) and then expanded by Bartholomew and Horowitz (1991). By combining Bowlby's internal working models of self and other, avoidant attachment was differentiated as either dismissing or fearful.

More recently researchers have moved from a typology of attachment style towards measurement along the two dimensions of attachment anxiety and avoidance. Figure 1. illustrates attachment styles within this two dimensional space and their corresponding prototype.

The area occupied in this two dimensional space is defined in terms of an individual level of attachment anxiety and avoidance. Attachment Security is assigned to the dimensional area where both anxiety and avoidance are low. This space is marked by a comfort with interpersonal closeness and a positive view of the self and others which promotes reliance on others and self competence.

Insecure attachment can be understood by three remaining attachment styles. Anxious Attachment style is assigned to the space where low avoidance and high anxiety co-occur and is defined by positive view of others and negative view of self.

This is characterised by preoccupation with relationships and emotional closeness, alongside fears of abandonment and rejection.



**Figure 1. Two dimensional model of adult attachment style (Bartholomew & Horowitz, 1991)**

Dismissing-Avoidant Attachment style is assigned to the space where high avoidance and low anxiety co-occur and is defined by a negative view of others and a positive view of self. This is reflected by compulsive self-reliance and discomfort with interpersonal closeness.

The fourth region is marked by both high avoidance and anxiety and termed Fearful-Avoidant attachment style. This is defined by a negative view of self and others and a chaotic oscillation between approach-avoidance strategies.



### 1.2.3 Coping

The term 'coping' describes the range of cognitive and behavioural responses for dealing with the demands of threat. The starting point for research which has focused on differential coping responses was the work of Lazarus and Folkman (1984) whose transactional model of coping proffered that coping strategies could be understood in terms of two domains 'problem-focused coping' and 'emotion-focused coping'.

Problem-focused coping strategies look to eliminate, reduce or adjust the demands of a stressor. These include defining and appraising the problem and then generating potential solutions. Emotion-focused coping seeks to reduce the associated distress through efforts to change the emotional experience via cognitive re-appraisal and seeking social support.

The Ways of Coping Scale (Folkman & Lazarus, 1984) defined eight factors; confrontative coping, distancing, self-controlling, social support seeking, accepting responsibility, escape-avoidance, planful problem solving and positive reappraisal. The transactional model does not assert one type of coping as more successful than the other, but assumes that a range of coping styles are adaptive and effective over the course of a stressful situation.

Carver and colleagues (1989) argued that despite providing a useful distinction between coping styles the transactional model fails to provide clarity between helpful and unhelpful coping strategies. This led to the addition of a maladaptive coping domain within the COPE (Carver et al.,1989) which included; the focusing on and

venting of emotions, denial, behavioural and mental disengagement and alcohol and drug use.

#### 1.2.4 Attachment and Coping

Bowlby's conceptualisation of internal working models enables predictions to be made regarding how individuals will go about coping with adversity depending on their early attachment experiences. A positive sense of self is likely to result in individuals managing difficulties by utilising their internal coping resources. A positive sense of others is likely to result in individuals investing in support seeking as a means of enlisting others to facilitate coping. Flexible use of both approaches would be expected where both models of self and others are positive.

In preoccupied individuals we would expect to observe less use of problem focused coping and efforts directed towards securing social support. Also, as the preoccupied individual may engage in hyperactivation of negative affect we would expect to see an increase in emotion-focused coping.

Conversely, those with a dismissing attachment pattern are more likely to deal with difficulties independently or if this is inadequate, deactivation of affect through distancing and disengagement may be more likely.

For those who are fearful-avoidant we may expect a less clear pattern of coping given that they are unable to rely on themselves or others to overcome threat. It may be that less adaptive coping strategies will be utilised by this group in an attempt to manage associated distress.

## 1.3 Aims of Current Review

The links between attachment style and coping response seem theoretically robust, although the focus of research has become quite diffuse by exploring either specific attachment styles or discreet coping strategies. This makes extrapolating the relationship between attachment style and coping response an unwieldy task. Given the relative importance this relationship may have for understanding processes that contribute to the development of psychopathology and engagement in behaviours that promote recovery, the current review therefore aims to systematically identify and evaluate the available literature that considers the relationship between Adult Attachment Style and Coping Responses.

The synthesis of the findings is intended to provide a comprehensive review of this relationship and will be discussed in terms of its clinical implications.

## 1.4 Review Method

Prior to commencing a comprehensive literature search, efforts were made to ensure that no other systematic reviews were being conducted with this particular focus. This was achieved by referring to The Cochrane Database of Abstracts of Review Effects (DARE), which failed to identify any related reviews in this area.

### 1.4.1 Search Strategy

In line with previous systematic reviews literary databases were selected on the basis of their affiliation with psychological peer reviewed journals. The following

databases were selected; PsychInfo (1985-2013), Medline (1985-2013), CINAHL (1985-2013) and EMBASE (1985-2013).

An initial search strategy was conducted in March 2013 in the following way; 'Attachment' and 'coping' OR 'coping strategy' OR 'coping response' OR 'coping style' OR 'affect regulation' OR 'self-management' OR 'adjustment' OR 'adaptation'. This search yielded too high a volume of papers to continue the research process.

A simplified secondary search strategy was performed using the following; 'Attachment' and 'Coping' OR 'affect regulation'. A total of 2248 articles were identified which reduced to 1761 following deduplication. An initial screening of study titles and abstracts was carried out to remove studies, which clearly did not meet the review criteria (outlined below). This resulted in fifty journal articles being sought in full and subject to the existing review criteria. This resulted in the inclusion of 10 papers for full review.

Given the potentially limiting search strategy, a tertiary strategy was employed by screening the reference section of all journal articles selected for review. This led to identification of a further 8 potential articles with seven excluded due to design. A total of 11 articles met criteria for the final review (search process illustrated in *Figure 2*.)

#### 1.4.2 Inclusion Criteria

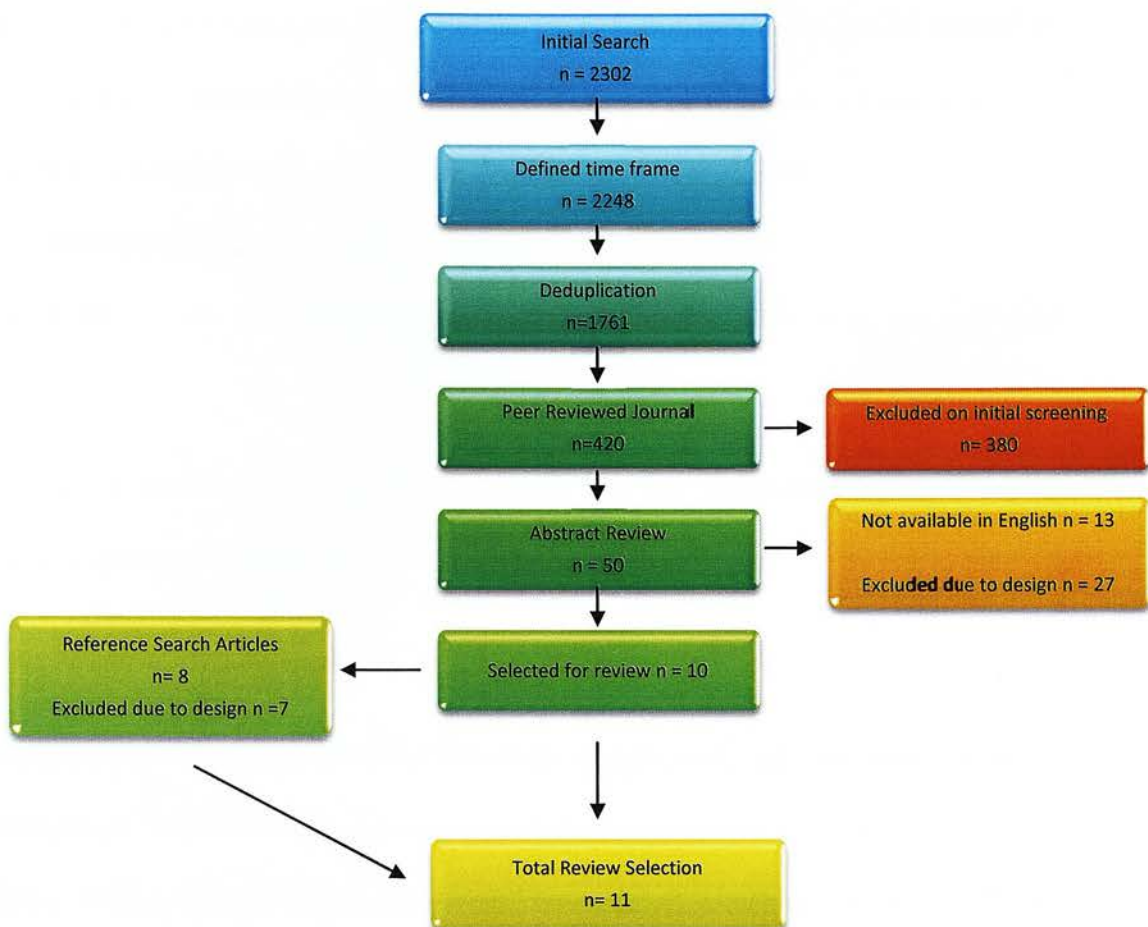
As previously mentioned there is an expansive literature considering the relationship between attachment styles and coping response, although in many the research focus is too narrow and exclusive. To enable synthesis of the research that would

adequately address the review question, only literature that explored both constructs in full were included and hence the following review criteria were set as a filter;

- (i) Published Peer Reviewed journals
- (ii) Published in English Language
- (iii) A measure of Adult Attachment Style was administered at 18 years old or over
- (iv) Attachment style was considered across classifications or dimensions
- (v) A measure of overall Coping style was administered (either in relation to a specific stressor or as a measure of dispositional coping)
- (vi) Articles were research studies including statistical analysis relevant to the review aims

#### 1.4.3 Critical Review

Standard critical appraisal tools for clinical interventions and RCT's were consulted and deemed poorly suited to the current review (Petticrew & Roberts, 2006). The development of a review specific critical appraisal framework was informed by review guidelines provided by Scottish Intercollegiate Guidance Networks (SIGN) and the Cochrane Collaboration. This sought to systematically examine the methodological aspects of each study alongside the quality of reporting (see Appendix i). Six of the eleven identified papers were second rated by a Clinical Psychologist and Specialist Psychological Practitioner to assess the reliability and validity of the critical appraisal criteria ( $\alpha=.89$ ).



**Figure 2. Flowchart of review search process.**

## 1.5 Results

### 1.5.1 Overview of Identified Studies

The variability of the review articles in terms of the coping context, study population and methodology presented an interesting challenge in terms of synthesising the data.

To provide a framework for understanding the current systematic review, articles

will be discussed within the context of the study population which can be defined by three distinct groups; Coping with Extreme Threat-War (3 articles); Coping within a normative population (6 articles) and; Coping with Chronic Health Conditions. There was considerable variation between study sample sizes ranging from 54-5000. The mean sample size was 550 participants although this was skewed by one particular study.

All review studies examined the relationship between attachment style and coping strategies to varying degrees and with differing methodologies.

### *Measurement of Attachment*

Measurement of attachment varied across the studies, with only one using the Adult Attachment Interview and three way classification system (AAI; George, Kaplan and Main, 1985). Another used the less well known Adult Attachment Prototype Rating interview (AAPR; Strauss et al., 1999) with a four way classification providing three levels of attachment security and one insecure rating.

Self reported measurement of attachment was used in nine studies. Three studies used a Hebrew version of Hazen's and Shaver's (1987) three descriptive paragraphs of attachment style. Two of these three extended this by including a 15 item scale of statements derived from the descriptive paragraphs (Mikulincer et al., 1991).

One study used the four-way classification using the Relationship Style Questionnaire (RSQ; Bartholomew & Horowitz, 1991). Three studies used the Experiences in Close Relationships Questionnaire (ECR; Brennan et al., 2000) to measure attachment over two dimensions. One study used the Attachment Style Questionnaire (ASQ; Feeney et al., 1984) measuring attachment dimensions. One

study within physical health used the Measurement of Attachment Qualities (Carver et. al., 1997a), which was developed for a health population. It differs from other attachment measures in that it differentiates between two attachment anxiety classifications; ambivalence worry and ambivalence merger.

### *Measurement of Coping*

Measurement of Coping seemed to be subject to more tailoring across studies. One study used the interview based Bernese Coping Modes (Heim et. al., 1996) which was originally developed for use in clinical health. Two studies used a Hebrew version of the self-report Ways of Coping Checklist (WCC; Folkman & Lazarus, 1980) and a further two used a revised version of this (Folkman et al., 1986; Vitaliano et al., 1985). Three used the COPE (Carver et al., 1989; Carver et al., 1997b) and one study used an amalgamation of the WCC and COPE. One study used the Coping Across Situations Questionnaire (CASQ; Seiffge Krenke, 1985) and the remaining two used a study specific measurement of coping. A tabulated overview of the review studies can be found in Table 1.

The differing use of measurement and associated terminology makes synthesis of data more difficult. Findings have been extracted as per the author's terminology and as a means to limit confusion some definition is provided. The review studies differ primarily in the definitions of attachment insecurity. Terms such as; anxious/anxiety, preoccupied, ambivalent and hyperactivating are used interchangeably to signify anxious attachment. For avoidant attachment, terms such as; avoidant, dismissing or fearful and deactivating are used.



Table 1. Overview of studies being reviewed

Author (by publication date) & Country	Design	Population And setting	Sample Size (female n)	Power/Effect Size (e.s.)	Measure of Attachment	Measure of Coping	Focus	Key Findings
Mikulincer et al., (1993) Israel	Retrospective cohort	Students Non-Clinical	140 (96)	Adequately powered for analysis	Hazen & Shaver (1987) and Mikulincer et al, (1991) (15 items based on Hazen & Shaver 1989)	WCC (Hebrew version)	Coping with scud missile attacks 2 weeks following the Gulf war.	Securely attached used more support seeking. Ambivalents used more emotion focused coping. Avoidants used more distancing coping.
Mikulincer & Florian (1995) Israel	Prospective Cohort	Students Non-clinical	92 (all male)	Adequately powered for analysis	Hebrew version of Hazen and Shaver (1987) three paragraphs RSQ	WCC (Hebrew version)	Coping with military combat training	Ambivalents more emotion focused. Avoidants more distancing and less support seeking.
Ognibene et al., (1998) USA	Cross-sectional	Students Non-clinical	81 (41)	Adequately powered for analysis		WCC	Coping with hypothetical student life situations	Secure used and perceived more social support. Preoccupied used social support and escape avoidance. Avoidant sought less social support and used more distancing.
Solomon et al., (1998) Israel	Retrospective Cohort	Ex POW Non-Clinical	164 (all male)	Adequately powered for analysis	Hazen & Shaver (1987) and Mikulincer et al, (1991) (15 items based on Hazen & Shaver 1989)	Study specific measure of coping with imprisonment.	Coping with imprisonment and long term (18 yrs) adjustment	Secure attachment associated with active coping. Insecure attachment more avoidant coping.
Alexander et al., (2001) Aus	Prospective Cohort	First time expectant parents Clinical - Physical Health	92 Couples	Adequately powered for analysis	ASQ	Ways of Coping Checklist-Revised. V'italiano et al. 1985)	Attachment as predictor of coping in transition to parenthood	Attachment is predictive of coping and is gender specific. Anxiety predicts emotion focused coping in women and reduced problem focused coping in men. Avoidance predicts reduced support seeking in women.

Continued.						
Schmidt et al., (2002) Germany	Retrospective Cross-sectional	Chronic Physical Health	150 (131)	Adequately powered for analysis	AAPR	Bernese Coping Modes.
						Influence of attachment and coping on adjustment to a chronic health condition
						Main effect for attachment and coping when controlling or confounding variables. Differentiate between affect regulation and external coping.
Davis et al., (2003) USA	Cross-sectional	Internet Respondents	5000 (3380)	Adequately powered for analysis	ECR-R	Study specific measure
						Influence of attachment on coping in relationship breakdown.
Seiffge-Krenke (2006) Germany	Prospective longitudinal (7 yrs)	Students Non-Clinical	112 (64)	Adequately powered for analysis	AAI	Coping with relationship stressors and adaptation over time
						Attachment security related to active coping. Dismissing Attachment related to less active coping and preoccupied attachment related to withdrawal and emotion focused coping.
Holmberg et al., (2011) Canada	Retrospective Cross-sectional	Students Non-Clinical	75 (50)	Adequately powered for analysis	ECR-R	Amalgamation of : COPE, Brief COPE and WCC
						Attachment as a moderator of the coping sequence
						Adult Attachment moderated the coping sequence. Dismissing attachment predicted later use of support seeking and earlier use of distancing. Preoccupied attachment predicted earlier use of emotion focused coping.
Berry et al., (2012) UK	Cross-sectional	Students Non-Clinical	57 (49)	Adequately powered for analysis	ECR-R	COPE
						Influence of attachment on coping strategies for exam related stress
						Attachment avoidance predicted less problem-focused coping. Attachment anxiety predicted dysfunctional coping.
Schmidt et al., (2012) Germany	Retrospective cross-sectional	Cancer survivors Clinical-Physical Health	54 (40)	Underpowered for analysis	MAQ.	Brief COPE
						Influence of attachment and coping style for post traumatic growth.
						Secure attachment associated with active coping and positive reframing. No relationship for insecure attachment found.

### 1.5.3 Quality Ratings

The critical appraisal ratings for each article are outlined in *Table 2*. These offer a guide in terms of the quality of each article, although direct comparison is made difficult by the diversity of the populations, design and methodology employed across the review articles.

Overall, the quality ratings highlight a high level of between-study variability in terms of the methodological rigour employed and the resultant conclusions that can be drawn. Ratings ranged from 12 to 17 out of a possible 20. Seiffge-Krenke (2006) and Berry et al., (2012) provide the most methodologically robust studies, both with a rating of 17. Solomon et al., (1998) and Schmidt et al., (2002) provide the least convincing evidence based on a rating of 12 out of a possible 20. Each article is discussed in more depth in the remainder of the review.

### 1.5.4 Attachment and Coping in response to War related Stressors

Mikulincer and colleagues (1998) conducted one of the first studies that examined the relationship between attachment styles and coping strategy by exploring individual reactions to Iraqi scud missile attacks during the Gulf war. 141 Israeli students were interviewed two weeks following the war and attachment was classified using the three category typology over two different measures. Hazen and Shaver's (1987) standardised three descriptive paragraphs of how people feel in relationships was administered, followed by a list of 15 statements generated from the constituent parts of Hazen and Shaver's three paragraph measure (Mikulincer et al., 1990). Coping was measured using a Hebrew version (Solomon et al., 1988) of the shortened Ways of Coping Checklist, WCC, (Folkman & Lazarus, 1980) which is a self reported 44-item measure of a broad range of behavioural and cognitive

strategies employed in response to stressful events. Subjects were asked to recall the missile

Table 2. Tabulated Critical Appraisal of reviewed articles (chronological order)

Study	Mikulincer et al., 1993	Mikulincer & Florian, 1995	Ognibene et al., 1998	Solomon et al., 1998	Alexander et al., 2001	Schmidt et al., 2002	Davis et al., 2003	Seiffge-Krenke, 2006	Holmberg et al., 2011	Berry et al., 2012	Schmidt et al., 2012
Quality Criteria											
Aims and Hypotheses	2	2	2	1	2	2	2	2	2	2	2
Replicable	2	2	2	2	2	1	2	2	2	2	2
Attachment measurement 1	1	1	2	1	2	1	1	2	2	2	2
Attachment measurement 2	1	1	1	1	1	1	1	2	1	1	1
Coping Measurement 1	1	2	2	1	2	1	2	2	1	2	2
Coping Measurement 2	1	1	1	1	1	1	1	1	1	1	1
Design	1	2	1	1	2	1	1	2	1	2	1
Analysis	2	2	2	2	2	2	1	2	2	2	1
Power/ Effect Size	1	1	1	1	1	1	2	1	1	2	0
External validity	1	1	1	1	1	1	1	1	1	1	0
Total Rating	13	15	15	12	16	12	14	17	14	17	13

attacks and to rate the extent they used each coping strategy on a four- point Likert scale. Factor analysis yielded four main factors that accounted for 67% of the variance; problem focused coping, emotion focused coping, support seeking and

distancing; Cronbach's alpha's ranged from .72-.87 over the four factors suggesting reasonable internal consistency.

ANOVA revealed no significant main effects for attachment style and problem-focused coping but did for emotion focused coping,  $F(2,120)=4.48$ ,  $p<.01$ , in that ambivalent individuals reported using more emotion-focused coping, than secure and avoidant individuals. This was also the case for support seeking strategies  $F(2,120)=3.94$ ,  $P<.05$ , which revealed that secure individuals reported more support seeking than ambivalent and avoidant individuals. Likewise, the ANOVA for distancing strategies also revealed a main effect for attachment style,  $F(2,120)=4.07$ ,  $p<.05$ , which found avoidant individuals reported using more distancing strategies to deal with missile attacks than both ambivalent and secure individual. However this was only found in individuals living in closer proximity to the attacks, which were considered to be more dangerous and therefore more stressful.

To address the methodological limitations of a retrospective cross-sectional design Mikulincer and Florian (1995) followed 92 Israeli recruits through military combat training. To explore real time accounts of coping, they established attachment style at the outset of the study and assessed coping four months later. This enabled them to explore the prospective contribution of attachment style to coping response and appraisals of threat.

When compared with secure and avoidant individuals, ambivalently attached individuals reported greater emotion focused coping. Both ambivalent and secure individuals reported higher levels of support seeking than avoidants and avoidantly attached individuals reported greater use of distancing coping.

Differences were also found between insecure attachment groups in terms of cognitive appraisals of threat and coping. Both anxious and avoidant individuals perceived training as more threatening, but only anxious individuals perceived themselves as less able to cope with the threat.

The last of the studies in this group was conducted by Solomon and colleagues (1998) who explored coping with war captivity in 164 Israeli ex Prisoners of War (POW) 18 years following the war. They included a control group and used a non-standardised measure to assess coping with imprisonment. From this they derived four factors through varimax rotation; Active coping, Denial, Imagination and Isolation, with varying internal consistency (.32-.72).

The only significant finding reported with regards to attachment and coping was that secure individuals reported greater reliance on active coping strategies in prison than avoidant and ambivalent individuals,  $F(2,128)=9.40, p<0.001$ .

#### 1.5.5 Normative Group

Building upon research which considered coping in response to high levels of threat Ognibene and Collins (1998) looked to extend the work carried out by Mikulincer and colleagues (1993) by considering more normative experiences, arguing that the way an individual copes with daily life stressors may differ both in terms of stressor severity and in terms of the coping responses required.

They investigated coping responses to a series of hypothetical stressful situations synonymous with student life ( $n=81$ ) with the addition of examining the effects of perceived availability of social support in support seeking as a coping strategy. Using the RSQ, data were analysed using attachment style as a continuous and categorical



variable, and also by converting these into two continuums of internal working models. Coping was assessed by computing a standardised score derived from the WCC and a coping index developed for hypothetical vignettes used in the study.

Partial correlations were used to examine the relationship between attachment style and patterns of coping. Secure and preoccupied individuals reported more social support seeking (both  $r=.33$ ,  $p<.01$ ), although preoccupied individuals reported greater confrontative coping ( $r=.22$ ,  $p<0.05$ ) and escape avoidance ( $r=.33$ ,  $p<.01$ ). Although failing to reach significance, trends were reported for fearful individuals using more distancing and escape avoidance and dismissing individuals using less escape avoidance strategies.

A similar, albeit weaker, pattern of results were reported when running MANOVA's for attachment as a categorical variable which revealed a marginally significant effect for attachment style,  $F(12, 196) = 2.02$ ,  $p<.05$ . Dismissing individuals reported less social support seeking than secure and preoccupied individuals. Fearful individuals differed significantly from the secure group in terms of social support seeking; and preoccupied individuals used more escape avoidance coping than dismissing individuals.

Further analysis revealed significant effects for model of self and others in coping with stress. Social support seeking was predicted by model of other, with positive model of others more likely to seek social support. Distancing was not predicted by internal working models, but escape avoidance was significantly predicted by model of self, with those with a negative model of self reporting higher rates of escape-avoidance coping in response to stress.

Alexander et al., (2001) found similar results by considering coping within an interpersonal context by following a sample of 92 married couples transitioning to parenthood. Structural Equation Modelling revealed emotion-focused coping in women was significantly predicted by attachment anxiety,  $\beta = .41$ ,  $p < .001$ , although in men, this relationship was mediated by self-esteem and parenting strain. Women's support seeking was related negatively to attachment avoidance. Men's problem focused coping was reliably predicted by direct negative association with attachment anxiety,  $\beta = 1.23$ ,  $p < .05$ , and an indirect positive association with attachment anxiety via parenting strain. The nature of study population and stressor in question leads the authors to explore attachment and coping as a dyadic process. Direct effects were found between attachment style and partner's coping strategy in support seeking. Men's support seeking was related negatively to partner's attachment anxiety and positively to partner's attachment avoidance.

In terms of coping resources as mediators, it was found that attachment anxiety and avoidance had indirect effects on coping via self-esteem for men and through social support for women.

Davis and colleagues (2003) published the largest study included in this review with a focus on the interpersonal context. They explored factors affecting physical, emotional and behavioural responses to relationship breakdown in 5000 internet respondents. Using the ECR (Brennan et al., 1998), attachment was considered as a two dimensional measure of anxiety and avoidance. Consistent with earlier studies they found that attachment anxiety was positively associated with social coping and attachment avoidance was negatively associated with social coping and positively associated with self-reliant coping strategies. They reported greater use of distancing



strategies in attachment avoidance and higher rates of escape-avoidance coping in those with increased coexisting attachment anxiety and avoidance.

In a seven year longitudinal study, Seiffge-Krenke (2006) followed 112 students followed from adolescence to early adulthood. Attachment style was classified in adulthood, hence the inclusion of this paper in the current review. Using the AAI, which has been considered the 'gold standard' of attachment measures (Obegi & Berant, 2009), unconscious attachment representations were coded following a semi-structured interview.

The findings support much of what has been found in previous studies, with dismissing individuals reporting significantly lower active confrontative coping with relationship stressors than secure individuals,  $F=3.731$ ,  $p=0.025$ . For withdrawal coping, individuals with a preoccupied attachment scored significantly higher than those with secure and dismissing attachment style,  $f=4.532$ ,  $p=0.010$ .

Although those with dismissing attachment demonstrated less active coping their internal or cognitive attempts at coping did not exceed those in the secure group. Those classified as preoccupied showed high levels of confrontative coping alongside withdrawal coping, which the authors labelled as an ambivalent coping style.

Berry and Kingswell (2012) considered attachment and coping in relation to exam-related stress in a sample of 57 university students. A series of regression analyses were performed and revealed that attachment avoidance significantly predicted less use of problem-focused coping for dealing with exam stress ( $\beta=.45$ ). The relationship between attachment and emotion focused coping failed to reach

significance. As suggested by previous findings, attachment anxiety was a significant predictor of dysfunctional coping but attachment avoidance was not ( $\beta=.38$ ).

In addition to assessing preferential use of coping strategies in their study, Holmberg and colleagues (2010) explored differences in the temporal sequence of coping strategies used dependent on attachment style. When considering coping as a fixed strategy, they found that higher attachment avoidance predicted less use of social support from both friends and family and that higher attachment anxiety predicted greater use of emotion-focused coping. Contrary to expectations they found an increased use of distancing coping was related to greater attachment anxiety rather than attachment avoidance. They found no significant effects for problem focused coping, although reported a trend towards it being related to lower attachment avoidance.

To test the coping sequence a series of hierarchical regression analyses were conducted predicting average rank orders of each of the five coping domains. Three-way interactions found that attachment avoidance was significantly related to later use of social support coping from a partner and with earlier use of distancing coping. A significant stressor severity effect was found for those with avoidant attachment style but not for the other three categories of attachment. For individuals with preoccupied attachment, a significant association was found for earlier use of emotion-focused coping for major stressors but later use for minor stressors. Higher attachment avoidance was significantly associated with earlier use of problem-focused coping.

### 1.5.6 Physical Health

Factors affecting coping and longer term adjustment to physical health difficulties have become a more recent research focus, particularly in relation to the influence of attachment style within the coping process. Schmidt and colleagues (2002 & 2012) have explored attachment in relation to coping with chronic disease.

The first of these studies focused on three sub-samples within physical health; a breast cancer group, a chronic leg ulcer group and an alopecia group. Further to previous research, hypotheses were also formed in terms of flexibility across coping strategies and discrepancy in self and observer ratings of coping and attachment. For this both self-report and observer rated measures of attachment and coping were utilised which revealed a moderate effect for attachment pattern on coping strategies.

Schmidt et al., (2002) reported a moderate effect size for attachment patterns on coping whilst controlling for confounding variables. Attachment security was related to more flexible coping and insecurity to less flexibility. Differences were also found depending on self or observer perspective. From an observer perspective, ambivalent attachment resulted in more negative emotion focused coping whilst avoidance resulted in more diverting coping strategies.

The second study in this group (Schmidt et al., 2012) considered attachment and coping in relation to post-traumatic growth in cancer survivors. They found significant associations among secure attachment, adaptive coping and posttraumatic growth but other attachment relationships failed to reach significance.

## 1.6 Discussion

### 1.6.1 Synthesis of the findings

Conceptual differences in the measurement of adult attachment style within the current review, has made extrapolating conclusions difficult. In a bid to provide some clarity study findings have been synthesised in relation to whether a categorical or dimensional construct was used.

Considering attachment as a categorical variable, the most methodologically robust study was presented by Seiffge-Krenke (2003). Within the interpersonal context, attachment security predicted use of active coping, which allowed individuals to problem solve by confronting both peers and family members in a positive way. This finding was supported by other studies in that attachment security was associated with; active coping (Solomon et al., 1998, and Schmidt et al., 2002 & 2012), problem focused coping (Solomon et al., 1998, Schmidt et al., 2002 & 2012) and increased use in support seeking as a coping strategy (Ognibene et al., 1998; Mikulincer et al, 1993, Mikulincer and Florian, 1995). Schmidt et al., 2002 also found securely attached individuals approached coping in a more flexible way by alternating between adaptive strategies, which is reflected above. These findings are consistent with theoretical assumptions proposed by Bowlby that as securely attached individuals have a positive internal working model of themselves and others, they are likely to utilise both internally driven problem focused coping strategies alongside turning to others to facilitate instrumental or supportive coping.

For individuals with a more dismissing-avoidant attachment style, findings suggest a preference for self-reliant coping strategies and a reduction in interpersonal

closeness. A reduction in social support coping was observed in this group compared with anxious and secure individuals (Mikulincer et al., 1993; Mikulincer & Florian, 1995; Ognibene & Collins, 1998; Schmidt et al., 2002; Davis et al., 2003). Seiffge-Krenke found a reduction in active confrontational coping within an interpersonal context, although found levels of self-reliant coping no greater than that observed in the secure group. Schmidt et al., (2002) found no significant findings from the self-report measures in this group, although did find an association between dismissing attachment and observational ratings of increased denial and diverting strategies. Likewise, Solomon et al., (1998) reported a more avoidant style of coping, which is consistent with deactivation of affect.

For those identified as having an anxious/ambivalent or preoccupied attachment style, a pattern of what could be considered ‘ambivalent coping’ was observed. There was an association between attachment anxiety and increased support seeking (Mikulincer et al., 1993; Mikulincer & Florian, 1995; Ognibene & Collins, 1998; and Schmidt et al., 2002) alongside emotion-focused coping (Mikulincer et al., 1993; Mikulincer and Florian, 1995; Seiffge-Krenke, 2006; and Schmidt et al., 2002) and withdrawal or escape/avoidance coping (Ognibene & Collins, 1998; Seiffge-Krenke, 2006; Solomon et al., 1998 and Schmidt et al., 2002). The relationship between increased social support and greater reliance on emotion focused-coping seems unclear. It could be that seeking social support enables an individual to focus on emotions and uses social resources as a way of regulating negative affect. The use of distancing or escape/avoidance may then be a reflection of anticipating rejection or a consequence of social supports being unable to adequately reduce distress.

For those studies considering attachment across the dimensions of anxiety and avoidance there was less consistency. Increased attachment avoidance was associated with greater use of self-reliant problem focused coping and reduced support seeking (Davis et al., 2003) but not in relation to exam related stress (Berry & Kingswell, 2012). Alexander and colleagues (2001) reported significant gender effects with only women reporting reduced support seeking. Holmberg and colleagues (2011) reported a significant stressor severity effect which revealed that dismissive attachment resulted in earlier use of distancing as a coping strategy and later use of support seeking, only with increased threat. This was also identified by Mikulincer et al., (1993), who observed an increase in withdrawal coping with closer proximity to Iraqi Scud missile attacks. As these stressor severity effects were not found in other attachment groups, it suggests that the use of deactivation of affect reaches a point where it is no longer a useful coping strategy and increased efforts to cope have to be made.

In terms of dimensional attachment anxiety, Berry and Kingswell (2005) found a relationship between attachment anxiety and dysfunctional coping with exam related stress. The measure of this was consistent with strategies to reduce associated distress in response to a stressor. Likewise, this was supported by Holmberg et al., (2011) who found earlier use of emotion focused coping in this group. Again, Alexander et al., (2001) established specific gender effects which found anxious women used more emotion focused coping but that anxious men used less problem focused coping. This may highlight gender driven cultural differences in coping strategies.

Davis and colleagues (2003) found that attachment anxiety resulted in increased support seeking but that coexisting high levels of attachment anxiety and avoidance resulted in greater use of dysfunctional coping, as measured by drug and alcohol use. If this were translated into internal working models, we would see negative view of self and others in this group. This supports theoretical propositions concerning escape/avoidance strategies in those who are categorised as fearful-avoidant.

### 1.6.2 Study Limitations

Further difficulties in arriving at a conclusion regarding the relationship between attachment patterns and coping response, are presented in the methodological limitations of the review studies. The variability of quality ratings between the studies, also suggests that caution should be taken when interpreting these findings collectively. Although no quality level was set for inclusion of literature within this review, it is of note that only a small number demonstrated a reasonable level of methodological rigour, and hence more reliable findings.

Pertinent to attachment research is the debate on the utility of self-reported measures of adult attachment styles compared with the interview format such as that offered by the AAI (George, Kaplan and Main, 1996). The first assumes conscious awareness of the self in relation to others and accurate reporting of this. In contrast the AAI assesses attachment states of mind, coded by how and what is said, at a subconscious level. Given that avoidantly attached individuals are less likely to value interpersonal relationships it is possible that there will be a tendency for under reporting of difficulties or less appraisal of questions geared towards examining the interpersonal

context. Likewise there may be an increased sensitivity to questions within an interpersonal context for more anxiously attached individuals.

Given the increased demand on time, training and costs required to use the AAI, it is often not a viable option in research. Indeed, this may be reflected in the smaller number of studies that assess attachment in this way.

Mixed conceptualisation of attachment in self-reported measures also obscures the picture. Some categorise attachment by differentiating between IWM's, and others do not. Whilst more recently, there has been a convergence towards a dimensional conceptualisation of attachment anxiety and avoidance. Clarity in terms of the most reliable measurement of attachment would greatly increase the conclusions that can be drawn from research in this area.

Similar measurement issues were also apparent when assessing coping in the studies reviewed. Schmidt et al., (2002) found differences in terms of self-reported and observer ratings of coping. In self-reported measures of coping, ambivalently attached individuals reported high rates of all coping strategies, thought to reflect hyperactivating tendencies, and avoidantly attached individuals reported lower rates of all coping, thought to reflect deactivating tendencies. The authors propose that in line with theory, this finding supports the notion of different levels of coping, in terms of affect regulation and outwardly oriented coping. Lower rates of discrepancy between self and observer rated coping were found for secure attachment, again emphasising the influence attachment style may have on the coherence of response. Furthermore, there is a great deal of overlap within and between measures of coping styles thus limiting conclusions that can be drawn on discreet coping responses.



With regard to the limitations present in the review studies, although Mikulincer and colleagues appear to establish a direct relationship between attachment style and preferential use of coping strategies, a cross-sectional design and reliance on retrospective accounts of coping do not enable causal inferences to be made. Limitations also come from the study setting, which could be considered a rather extreme stressor. The findings may therefore reflect coping under extreme threat rather than those used in response to daily stressors. Furthermore coping may be subject to cultural differences (Sica et. al., 1997) that reduces the generalisability of these findings to other populations.

These limitations were also present in the study conducted by Solomon et al., (1998) who collected data 18 years retrospectively. Accounts after such a period of time are likely to be subject to recall error (Dohrenwed & Dohrenwed, 1974) or may be influenced by current factors, including psychological distress or interference from more recent life stressors (Brown & Harris, 1978, Solomon & Flum, 1986). Indeed, both ambivalent and avoidant individuals reported greater levels of PTSD symptomatology in this study, which may impact on the reliability of retrospective accounts. With a lack of clear hypotheses and the use of a non-standardised measure of coping, the findings of this study unclear.

Again, Mikulincer and Florian (1995) provide a favourable prospective design, although limitations come from study population itself. This was an all male group who had undergone suitability screening by the Israeli Defence Forces, thus represents a selection of males deemed to possess qualities suitable for combat, such

as an ability to manage the extreme threat. An over-representation of securely attached individuals (78%) were found and it is possible that the small number of anxious ( $n=13$ ) and avoidant ( $n=7$ ) individuals may represent those whose attachment insecurity is less pronounced. It could be argued however, that significant findings in such a small distribution of attachment insecurity provides valuable evidence for the strength of the predictive value of attachment style on coping strategy.

Ognibene and Collins (1998) present a relative strength in their study by analysing attachment style across four categories, on a continuum and in relation to IWM's which allowed for more theoretical consideration. Let down again by a cross-section and the use of retrospective accounts, it is not possible to make a conclusion regarding the causal relationship between attachment and coping, or the reliability of participant accounts.

Improved by a prospective design, Alexander and colleagues (2001) explored causal links between attachment style, coping resources and coping styles. This study highlighted the complexity of the interaction between attachment style and coping and how this may be influenced by current attachment figures and available resources in adulthood. Although a prospective cohort design was used, the study was not fully longitudinal and administered measurements at one point in time. It does however follow a relatively large group at an interesting transition, whereby individuals are attending to the attachment needs of another alongside their own attachment needs.

Davis et al., (2003) collected data from 5000 Internet respondents in their study. This was a relative strength in terms of the sample size achieved, but is limited by potential bias in the population. Participation in the study was limited to individuals who were more computer literate and interested in participating in a study concerning relationship issues. This study also lacks clarity in terms of the measurement and conceptualisation of the coping response through use of a non-standardised measure.

Berry and Kingswell (2012) provided the most methodologically robust study in the review. By using a dimensional measure of attachment, there is increased reliability and sensitivity over categorical measures. However, these do not differentiate individuals in terms of their IWMs of others, i.e. dismissive versus fearful avoidance. This may explain the author's inability to find associations between avoidant attachment and dysfunctional coping, a finding previously observed by Ognibene and Collins (1998). Similar to other studies, a cross-sectional design limits causal inferences, and potential bias may come from the population being primarily female psychology students in a romantic relationship.

In the study reported by Holmberg et al., (2010) several methodological limitations preclude the validity and generalizability of these research findings. University students and family members were asked to generate either a minor or major stressor they had encountered within the past 6 months and reflect on the coping strategies they used and the order that they were used in. This methodology is open to bias from stressor appraisal and may not accurately reflect what took place. Furthermore this may also have resulted in a diverse sample of stressors being investigated, which could influence the type of coping strategies used.

Studies within physical health offered reduced generalisability in terms of the research measures used, the cross sectional design and predominantly female population (Schmidt et al., 2002). The most recent study (Schmidt et al., 2012) added little to existing literature due to a small sample size and a bias in the design, whereby participants were largely older, female and had experienced positive outcomes in terms of their physical health.

### 1.6.3 Clinical Implications

The differential use of coping strategies has clinical implications in terms of factors that are likely to affect the psychotherapeutic process. Overall, securely attached individuals are more likely to help seek in times of distress and form positive therapeutic expectations and relationships to promote symptomatic recovery. Furthermore, they are more likely to have an adaptive and flexible repertoire of coping strategies which may facilitate recovery or act as a buffer for distress. However, it is more likely that individuals presenting to psychological services will have an insecure attachment style (Dozier et al., 1999) thus will be more likely to have poorly developed or inadequate coping strategies to alleviate distress or to allow for full engagement with the process of treatment.

In the first instance is the likelihood of help seeking via what is essentially an interpersonal process. Given that representations of self and other appear to influence the use of social supports when under threat, it is possible this will effect who seeks

help via clinical services. If stressor severity and resources are likely to influence the coping process, we may expect to find greater symptomatic expression and limited social support at the point of help seeking.

Therapeutic engagement is also a consideration as it relies on the individual valuing and then integrating what is being offered by the therapist. Individuals could experience increased levels of threat when exploring difficult situations in therapy or have difficulty accessing and evaluating affect. A greater understanding of how an individual will respond therapeutically should enable clinicians to improve patient experiences and promote engagement.

Having insight into patient attachment style could therefore provide a set of predictions about possible difficulties that may be encountered when delivering therapy. It could be assumed that most experienced therapists can adjust to the specific needs of individual patients although earlier awareness of attachment styles and associated coping strategies will allow this to be integrated earlier in therapy and direct therapeutic goals or treatment modalities.

Enabling a shift in internal working models of self and others through therapy (Dozier et al., 1999) should be a treatment objective that could facilitate more flexible use of adaptive coping in the future and reduce re-referral rates. There is compelling evidence that the therapist's own attachment style and its contribution to a therapeutic attachment dyad can influence the therapeutic alliance (see Barron & Schwannauer, 2012, for a review). This may be a pertinent consideration when

working with complex individuals where interpersonal threats, such as a therapeutic rupture, could jeopardised the therapeutic alliance. The way that both patient and therapist cope with interpersonal difficulties seems an important factor in the resolution of a relationship breakdown and ultimately the success of treatment.

### 1.6.3 Conclusion

The current review provides an unclear picture regarding the relationship between adult attachment style and preferential coping mechanisms, owing to the variability of study quality, population and differential conceptualisations of attachment style and coping. There is some suggestion that findings are consistent with theoretical underpinnings, although it is clear that methodological continuity, particularly with regards to attachment measures, is required to enable findings to be considered cumulatively. It could be proposed that those studies differentiating between internal working models of self and other are more likely to be more sensitive to establishing individual differences in coping styles. Although the contrasting nature of direct and indirect effects of attachment style and coping strategy outlined by Alexander and colleagues (2001) serve to emphasise the interaction of a variety of intrapersonal and interpersonal factors (Marvin & Britner, 1999), which would benefit from further investigation.

Further research in this area would therefore benefit from a consensus in attachment measurement with larger sample sizes, which are adequately powered to consider potential mediators and moderators of this relationship. This would improve our understanding of the dynamics between attachment style and coping mechanisms,

and how this maps onto the provision of health care to enable recovery from mental ill health.

## 1.7 References

Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.

Alexander, R., Feeney, J., Hohaus, L., & Noller, P. (2001). Attachment style and coping resources as predictors of coping strategies in the transition to parenthood. *Personal Relationships*, 8, 137–152.

Barron, A.C. & Schwannauer, M. (2012) Unpublished Manuscript. *The role of patient and clinician attachment styles on the psychological therapy process: A systematic review*.

Bartholomew, K. & Horowitz, L.M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244.

Berant, E. & Obegi, J.H. (2009) Attachment informed psychotherapy research with adults. In E. Berant & Obegi, J.H. (Eds.), *Attachment Theory and Research with clinical work with adults*. (pp 461-489). Guilford Press: London

Berry, K. & Kingswell, S. (2012). An investigation of adult attachment and coping with exam-related stress. *British Journal of Guidance and Counselling*, 40, 315-325.

Bodenmann, G. (2005). Dyadic coping and its significance for marital functioning. In T. A. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 33–49). Washington, DC: American Psychological Association.

Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books

Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.

Brennan, K.A., Clark, C.L., & Shaver, P.R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J.A. Simpson & W.S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford Press.

Carver, C. S. (1997a). Adult attachment and personality: Converging evidence and a new measure. *Personality and Social Psychology Bulletin*, 23, 865-883.

Carver, C.S. (1997b). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioural Medicine*, 4, 92–100.

Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267–283.

Cassidy, J., & Kobak, R. (1988). Avoidance and its relation to other defensive processes. In J. Belsky and T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 300-323). Hillsdale, NJ: Erlbaum.



Centre for Reviews & Dissemination: The University of York (2008).  
<http://www.york.ac.uk/inst/crd>.

Cohen, J. (1988). Statistical power analysis for the behavioural sciences (2<sup>nd</sup> ed., pp 247-248). Hillsdale, NJ: Lawrence Erlbaum Associates.

Davis, D., Shaver, P. R., and Vernon, M. L. (2003). Physical, emotional, and behavioral reactions to breaking up: The roles of gender, age, emotional involvement, and attachment style. *Personality and Social Psychology Bulletin*, 29: 871–884.

DeFronzo, R., Panzarella, C., & Butler, A. C. (2001). Attachment, support seeking, and adaptive inferential feedback: Implications for psychological health. *Cognitive and Behavioural Practice*, 8(1), 48–52.

Dohrenwend, D. P. & Dohrenwend, D. S. (1974). Overview and prospects for research on stressful life events. In: D.P. Dohrenwend and D.S. Dohrenwend (Eds.), *Stressful Life Events Their Nature and Effects*. Wiley, New York.

Fraley, R.C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modelling of developmental mechanisms. *Personality and Social Psychology Review*, 6, 123-151.

Fraley, R.C., Waller, N.G., & Brennan, K.A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350\_365.

George, C., Kaplan, N., & Main, M. (1985). *The Berkeley Adult Attachment Interview*. Unpublished protocol, Department of Psychology, University of California, Berkeley.

- Hazan, C. & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Higgins, J.P.T, & Green, S. (2009). Cochrane Handbook for Systematic Reviews of Interventions. (version 5.0.2). *The Cochrane Collaboration*. [www.cochrane-handbook.org](http://www.cochrane-handbook.org)
- Holmberg, D., Lomore, C., Takacs, T.A. & Price, L.E. (2011). Adults attachment styles and stressor severity as moderators of the coping sequence. *Personal Relationships*, 18, 502-517.doi:101111/j.1475-6811.2010.01318.x
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59, 135-146.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer
- Main, M., & Goldwyn, R. (1984). *Adult Attachment Interview: Scoring and classification system*. Unpublished manuscript, University of California.
- Marvin, R. S., & Britner, P. A. (1999). Normative development: The ontogeny of attachment. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 44-67). New York: Guilford
- Mikulincer, M. & Erev, E. (1991). Attachment style and the structure of romantic love, *British Journal of Social Psychology*, 30: 273-291.

Mikulincer, M., Florian, V., & Weller, A. (1993). Attachment styles, coping strategies, and posttraumatic psychological distress: The impact of the Gulf War in Israel. *Journal of Personality and Social Psychology*, 64, 817\_826.

Mikulincer, M. & Florian, V. (1995). Appraisal of and coping with a real-life stressful situation: The contribution of attachment styles. *Personality and Social Psychology Bulletin*, 21, 406–414.

Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 53–152). New York: Academic Press.

Ognibene, T.C., & Collins, N.L. (1998). Adult attachment styles, perceived social support and coping strategies. *Journal of Personal and Social Relationships*, 15, 323\_345.

Petticrew, M. & Roberts, H. (2006). *Systematic Reviews in Social Sciences: A practical guide*. Blackwell: Oxford, UK.

Schmitt, D.P., et al. (2004). Patterns and universals of adult romantic attachment across 62 cultural regions. *Journal of Cross-Cultural Psychology*, 35, 367-402.

Schmidt, S., Nachtigall, C., Wuethrich-Martone, O., & Strauss, B., (2002). Attachment and coping with chronic disease. *Journal of Psychosomatic Research*, 50, 763-773.

Schmidt, S., Blank, T.O., Bellizzi, K.M., & Park, C.L. (2012). The relationship of coping strategies, social support, and attachment style with posttraumatic growth in cancer survivors. *Journal of health Psychology*, 17, 1033-40.

Seiffge-Krenke, I. (1995). *Stress, Coping, and Relationships in Adolescence*. Erlbaum, Mahwah, NJ.

Seiffge-Krenke, I. (2006). Coping with relationship stressors: The impact of different working models of attachment and links to adaptation. *Journal of Youth and Adolescence*, 35, 25-39.

Shaver, P.R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment and Human Development*, 4, 133-161.

Scottish Intercollegiate Guidelines Network. Clinical Guidelines: criteria for appraisal for national use. Edinburgh: SIGN; 1995.

Solomon, Z. & Flum, H. (1986). Life events and combat reaction in the 1982 war in Lebanon. *Israel Journal of Psychiatry and Related Sciences*, 23: 08-16.

Solomon, Z., Ginzburg, K., Mikulincer, M., Neria, Y., & Ohry, A. (1998) Coping with war captivity: the role of attachment style. *European Journal of Personality*, 12, 27-285.

Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development*, 50, 821-829.

Vitaliano, P. P., Russo, J., Carr, J. E., Maiuro, R. D., & Becker, J. (1985). The Ways of Coping Checklist: Revision and psychometric properties. *Multivariate Behavioural Research*, 20, 3-26.

## 2. AIMS AND HYPOTHESES

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### Study Aims

The current study aims to characterise a sample of individuals presenting to mental health services for psychological intervention, and add to existing literature by exploring the interaction between patient and therapist attachment styles as a potential moderator of clinical outcomes. Clinical outcomes will be considered in terms of symptomatic relief, therapeutic engagement and changes in attachment dimensions.

Two main research hypotheses were developed in relation to attachment dimensions and clinical outcomes in psychological therapy. These are:

#### *Hypothesis 1.*

Individual attachment style will predict baseline symptom severity and outcomes following psychological therapy. This was broken down to make the following predictions;

1a Attachment anxiety and avoidance will be related to greater severity of symptoms prior to treatment.

1b Lower levels of attachment anxiety and avoidance will be related to greater symptomatic recovery.

1c High attachment avoidance will be related to reduced therapeutic engagement.

#### *Hypothesis 2.*

Therapist and patients scores on attachment dimensions will interact to influence engagement and clinical outcomes. From this the following predictions were made;

2a Therapists reporting higher rates of attachment anxiety will demonstrate greater engagement and clinical outcomes with clients reporting higher rates of attachment avoidance.

2b Therapists reporting higher rates of attachment avoidance will demonstrate better engagement and clinical outcomes with clients reporting higher rates of attachment anxiety.

2c Pairing clients with clinicians of the opposite attachment pattern will result in a corresponding shift along the attachment dimensions of anxiety and avoidance.

A secondary aim of the study was to consider the influence of attachment style on individual coping strategies and how this could impact therapeutic engagement.

### *Hypothesis 3.*

Client attachment style will predict an individual's underlying coping strategies and level of psychological distress.

3a Higher attachment anxiety will be related to increased social support seeking and greater use of emotion-focused and dysfunctional coping.

3b Higher attachment avoidance will be related to less social support seeking and greater use of problem-focused coping.

3c Higher rates of dysfunctional coping will be associated with higher levels of psychological distress before and after treatment.

### 3. METHODOLOGY

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#### 3.1 Design

As the key foci of the study were the processes taking place in therapy, a naturalistic non-experimental design was employed to ensure limited interference in the therapeutic process. This enabled clinicians to provide patients with treatment as usual (TAU) to; (i) overcome potential ethical issues surrounding the provision of treatment for patients and; (ii) to exclude introducing compounding variables which may affect the therapeutic relationship and clinical outcomes. The study used a prospective cohort design using a quantitative methodology to fully test the research hypotheses.

This study exists as a constituent part of a larger study to explore the relationship between the therapeutic attachment dyad, the therapeutic alliance and outcomes in psychological therapy. The first phase of this study has been concerned with the role of the therapeutic attachment dyad in the development of the therapeutic alliance and early engagement in therapy (Barron, 2012). The current study intends to consider the role of the therapeutic attachment dyad in clinical outcomes and longer term engagement with psychological therapy. Both studies analysed data from the same pool of participants. All data will be combined and analysed as one larger dataset to look more specifically at the important aspects of the therapeutic process.

## 3.2 Participants

Given the aim of the current study was to explore the therapeutic attachment dyad, both clinicians conducting therapy and their respective patients were asked to participate in the study.

### 3.2.1 Clinician Inclusion and Exclusion Criteria

NHS Lothian clinicians trained in the delivery of psychological therapies within specialised and generic adult mental health services, were eligible to participate in the current study. No exclusions were made in terms of; clinical setting, therapeutic approach, professional role, background and stage of training. Data were gathered with respect to professional title, therapeutic approach and level of experience for each participating clinician.

### 3.2.2 Patient Inclusion and Exclusion Criteria

Adults aged 18 years and above commencing a new episode of psychological therapy within NHS Lothian were eligible to participate in the study. No upper age limit was set and no exclusion criteria were defined in terms of diagnosis or presenting problem. Those who had received previous psychological therapy were also eligible for inclusion, although previous input from mental health services was recorded.

Individuals unable to understand the requirements of participation in the current study and provide informed consent were excluded from participation. This was defined as cognitive impairment or severe mental health difficulties that would



preclude provision of informed consent. Exclusion was not based on nationality or language.

### 3.2.3 Clinician Participation Rates

A total of (128) clinician research packs were distributed across the study area which yielded 39 completed consent forms in favour of participation (30%). The actual number of clinicians providing client data was 26, which provided a clinician recruitment rate of 20%.

### 3.2.4 Patient Participation Rates

Each potential participating clinician was given two patient research packs (266 in total) for distribution at the outset of the study as part of the study promotion. A further 140 patient research packs were distributed to accessible locations including departmental offices and consulting rooms. Electronic research packs were also made available via a shared drive on NHS Lothian's network and e-mailed to all potential participating clinicians. It is difficult to quantify the number of research packs distributed by clinicians given the ease of access to these in electronic form. As an approximation clinicians reporting their distribution suggest 150 packs were distributed to patients. This resulted in the return of 65 consent forms in favour of participation.

### 3.2.5 Rate of Attrition

A moderate rate of attrition was estimated given that the study was based in a natural clinical setting where disengagement from therapy is likely. Attrition rates were observed 53% which resulted in a total of 30 completed participant datasets.

### 3.3 Procedure

#### 3.3.1 Study Promotion

Given the necessity of clinician participation in the study design, recruitment commenced with the development and delivery of a staff presentation. This aimed to capture the interest of staff by providing information on the relevant psychological theory, principles and previous research to illustrate the potential utility of the study findings. Prior to its delivery across Lothian mental health services, this promotional presentation was given at the researcher's local psychology department CPD event. This was an opportunity to gauge staff views on the feasibility of conducting such a study within a busy clinical setting, and their views on providing data on their own attachment style. A staff poll was also conducted within the psychology department to ascertain whether anonymising staff data would result in greater clinician participation. Staff responses led to the decision to anonymise staff participation and data. This aspect of the design was facilitated by a member of the departmental administration team, who assigned a study ID code to all potential clinician participants and continued to act as an intermediary between the researchers and participating clinicians.

Promotion of the study was rolled out across Lothian Mental Health Services where psychological therapy was available. This included; delivery of the aforementioned presentation at routine team meetings to optimise staff attendance; placement of study posters and flyers in clinical and academic settings to prompt contact with the research team and as a visual reminder to staff.

Clinicians were given a staff pack at the presentation. This contained a unique study ID, a clinician information sheet, a consent form, a questionnaire to gather therapist data and a measure of attachment. Two addressed envelopes were included in each pack, and staff were asked to complete the consent form and questionnaire if they wished to participate. These were returned separately to ensure anonymity. Each therapist attending the presentation was also provided with 2 patient packs and guided through the contents.

### 3.3.2 Patient Research Packs

Patient research packs included; A Patient Information form (Appendix ii); a consent form (Appendix iii) and colour coded research measures. The colour coding system was utilised to ease clinician distribution of research measures, with each colour having a designated time for delivery. The current study focused on clinical outcomes and hence relied on measures being administered at the outset and termination of the treatment episode.

### 3.3.3 Patient Procedure

Patients were recruited over a defined time frame between the 1<sup>st</sup> of September 2011 and the 28<sup>th</sup> of February 2013. Clinicians were asked to invite all new patients to participate in the study within the first two assessment sessions by giving them a White research pack containing the relevant information, consent forms and baseline measures. Patients were asked to read the information out-with the therapeutic setting to consider participation fully with the option of contacting a member of the research team with any questions. Those consenting to participation returned the consent form and research measures in separate envelopes to ensure anonymity, and

assigned themselves a study ID comprised of their initials and date of birth. In the event that a client was unsure of participation, research measures were given and retained in their clinical notes and released for research purposes on receipt of consent.

As a further measure to improve recruitment rates, individuals presenting for an initial assessment appointment were identified by secretarial staff and a research pack placed in the client file as a prompt to the clinicians.

All patient measures were returned in envelopes provided in the research packs and detailed the therapist ID and date to ease tracking. These were then put in research drop boxes provided by the research team in clinical settings or mailed directly to the researchers.

### 3.4 Measures

Research data were primarily collected via the delivery of standardised self-report questionnaires. Additional client information was retrieved from clinical files by the researchers, unless provided by the clinician. This included demographic data, presenting problem, attendance rates, duration of treatment and symptom severity.

#### 3.4.1 Measure of Psychological Distress

The Clinical Outcomes in Routine Evaluation-Outcomes Measure (CORE OM; CORE Systems Group 1998) is a self-reported measure of psychological distress that is routinely administered within local adult mental health services and widely acknowledged as a reliable outcome measure for psychological therapies (Barkham et al., 2001). The CORE-OM is comprised of 34 items separated into the four

domains of *well being*, *problems/symptoms*, *life functioning*, and *risk* to self and others. Items are scored on a 5 point scale, with respondents asked to rate the frequency of each item in terms of how they have felt over the past two weeks; 0 (not at all) 1 (only occasionally) 2 (sometimes) 3 (often) or 4 (most of the time). All domains are balanced in high/low ratings to avoid ceiling and floor effects in scoring. Scores are calculated as mean values in each domain, with greater psychological distress indicated by higher scores. With high internal consistency (.75-.95) and test re-test reliability (0.90), (Evans et al., 2002) the CORE-OM provides increased clinical utility through broad inclusion criteria and as a result was considered appropriate for the purposes of the current study. Alpha for the current study was high ( $\alpha=.96$ )

### 3.4.2 Measure of Coping Style

The COPE Inventory (Carver, C. S., Scheier, M. F., & Weintraub, J. K., 1989) is a self reported theoretically grounded measure of a broad range of coping responses. The inventory is comprised of 60 items divided into 15 scales of functional and dysfunctional coping; *Positive reinterpretation and growth*, *Mental disengagement*, *Focus on and venting of emotions*, *Use of instrumental social support*, *Active coping*, *Denial*, *Religious coping*, *Humour*, *Behavioural disengagement*, *Restraint*, *Use of emotional social support*, *Substance use*, *Acceptance*, *Suppression of competing activities*, and *Planning*. Respondents are asked to rate each item in terms of the extent of which they use each coping response in times of stress; 1 (I usually don't do this at all) 2 (I usually do this a little bit) 3 (I usually do this a medium amount) or 4 (I usually do this a lot). This provides a measure of the respondent's dispositional style of coping. Cronbach's alpha

reliability coefficients were calculated for each scale and found variable internal consistency (0.62-0.92) and test-retest reliability (0.48-0.86). Alpha for the current study was reasonable at .85.

### 3.4.3 Measure of Attachment Style

The Experiences in Close Relationships-Revised (ECR-R) Questionnaire (Fraley, Waller & Brennan, 2000) is a revision of Brennan, Clark and Shaver's (1998) original Experiences in Close Relationship Scale (ECR) based on item-response theory analysis. It is a self-report two-dimensional measure of adult attachment style assessing; attachment related anxiety (i.e. the degree of an individual's security versus insecurity about the availability and responsiveness of others) and attachment related avoidance (i.e. the degree of an individual's discomfort being close to others versus security depending on others). In a shift from the original view of attachment as a categorical construct, the ECR-R has become the most widely used self-report measure of adult attachment on two dimensions (Fraley & Philips, 2009). Studies have reported high validity and reliability; anxiety (0.91) and avoidance (0.94) (Brenan et al., 1998). Alpha for the current study was high for both attachment anxiety ( $\alpha=.93$ ) and avoidance ( $\alpha=.92$ ).

The ECR-R is comprised of 36 statements concerning the experience of close relationships which are rated along a 7 point scale from; 1 (disagree strongly) to 7 (agree strongly) allowing for a neutral point 4. Individuals' mean scores are calculated on both attachment dimensions rather than providing an attachment style classification. Higher scores on each dimension are indicative of higher levels of attachment anxiety and avoidance.

The wording of several items of the ECR-R was adapted to elicit responses within the context of any close relationships rather than solely romantic relationships; e.g. *My partner only seems to notice me when I'm angry* changed to *Others only seem to notice me when I'm angry*.

#### 3.4.4 Measure of Therapeutic Engagement

Therapeutic engagement was measured in relation to rate of overall attendance during treatment and discharge reason; *Treatment complete* or *Disengaged*. Data on disengagement were also collected and individuals categorised as "end disengagement" and "early disengagement". Data were provided by participating clinicians or through the local NHS Patient Information Management System (PiMS).

### 3.5 Ethics

The current study was reviewed as part of a larger study by the South East Scotland Research Ethics Committee (group 1) and granted ethical approval in August 2011 via the Integrated Research Application System (IRAS). Local ethical approval was sought and granted by NHS Lothian Research and Development Office (both Appendix iv).

#### 3.5.1 Patient Informed Consent

Patient Information Sheets were distributed to potential participants to clearly outline the purpose of the current study and the nature of their involvement. This was accompanied by a consent form requiring initialling of individual aspects of study participation and a written signature as informed consent. Additional information

was given to clarify that participants could withdraw from the study at any time without explanation, and that participation would not affect the treatment being received.

### 3.5.2 Participant wellbeing

Distress through participation in the study was considered unlikely but as an additional measure participants were given contact details of a member of the research team they could contact in such an event, as well as being encouraged to address this with their therapist. Clients completed questionnaires designed to assess how they functioned in relationships. For some individuals this may have been a sensitive topic. Individual clinicians would have been considering this as part of a comprehensive assessment process, which would have allowed this to be addressed in session. Out-with clinical sessions, clients were given contact numbers for researchers for additional support. Clinicians were also offered feedback on their self rated attachment style if requested.

### 3.5.3 Clinician informed Consent

As a requirement of the ethical review process, a clinician consent form was developed (Appendix v) and accompanied the Staff Information Form. This was considered important given the potential for self-exposure of staff participating in the study. Full details of the purpose and requirements of those participating in the study were provided in both written form and via staff presentations, with all eligible staff members invited to attend. For those unable to attend, efforts were made to fully inform clinicians on an individual basis.



### 3.5.4 Anonymity and Confidentiality

Clinician anonymity was selected as a design feature following a departmental poll to gauge willingness to participate in the study. This was facilitated by a member of the administration team who assigned a unique study ID to each potential participating clinician. This was then used by clinicians when completing research measures.

## 3.6 Analysis

A priori power calculation was carried out to estimate the required sample size to test the hypotheses. A medium effect size was selected based on previous research (Smith et al, 2010). Using a university recommended online sample size calculator for regression analysis the following calculation was performed:  $p = .05$ , 2 independent variables, a moderate effect size,  $f^2=0.15$ , and a conventional statistical power level of 0.8. This yielded a required sample size of 67. With an estimated staff sample size of 38 therapists we had expected to achieve a patient sample size of 80-120 participants, which would have allowed for a moderate attrition rate. Overall 65 patients consented to take part in the study with 42 (64%) participants completing treatment. Of those completing treatment, outcome measures were received for 30 individuals, reflecting an overall attrition rate of 53.8%. As a result the planned analysis for clinical outcomes was adapted. Pearson product moment correlations were conducted to test the relationships between continuous variables. One-way ANOVA and independent samples t-tests were used to compare the means between groups. Cases were excluded pair-wise during analysis to maximise the dataset. Analysis was conducted using SPSS (version 17). *See Chapter 5 for full thesis references*

## 4. JOURNAL ARTICLE

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Title

The Therapeutic Attachment Dyad: Outcomes and engagement in psychological therapy

Abbreviated title for running head

Attachment, coping and outcomes in psychological therapy

## Abstract<sup>2</sup>

**Primary Objective:** The current study aimed to extend previous empirical evidence by exploring the application of attachment theory within a naturalistic clinical setting. Both patient and therapist attachment patterns were considered individually and as a therapeutic attachment dyad in relation to clinical outcomes following psychological therapy. It was hypothesised that patients reporting higher levels of attachment anxiety and avoidance would experience greater levels of psychological distress, less symptomatic relief and greater difficulty engaging with therapy. It was also hypothesised that patient and therapist attachment patterns would interact to moderate the trajectory of psychological therapy. A secondary aim of the study was to test the relationship between attachment dimensions and dispositional coping style within a clinical psychology population. **Research Design:** A quantitative prospective-cohort design was used and comprised of both a within-subjects and between subjects methodology to test the research hypotheses. **Method:** Thirty-eight therapists and 65 patients consented to participate in the study. Attachment was measured using the revised version of the Experiences in Close Relationships scale (ECR-R), Psychological distress was measured using the CORE-OM and coping was measured using the Coping Orientations with Problems Experiences (COPE). Both the ECR-R and CORE-OM were administered before and after treatment. **Main Results:** Individual attachment style was predictive of level of psychological distress and was related to outcomes following therapy. A significant relationship was found between the therapeutic attachment dyad and therapeutic engagement, specifically that pairings of avoidant therapists and avoidant patients resulted in poorer engagement. Attachment dimensions significantly predicted the use of particular coping strategies. **Discussion:** Results are discussed in relation to attachment theory, study limitations and future research directions.

*Keywords: Attachment, coping, therapy, engagement, outcomes*

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<sup>2</sup> This manuscript was prepared for submission to *Psychotherapy Research* and is largely presented in line with the Author Guidelines provided (see Appendix vii).

## Introduction

### Background

In his seminal trilogy "Attachment and Loss" Bowlby (1969, 1973 & 1982) posited the relevance of attachment theory within the context of psychotherapy<sup>3</sup>. He conceptualised early childhood experiences with key caregivers as a template for an individual's understanding of interpersonal relationships across the lifespan. In particular he argued that the development of mental representations or 'internal working models' (IWM's) of the self and others, would provide a system of relating in care-giving and receiving relationships. Given the interpersonal context of the therapeutic relationship, attachment theory can be viewed as a construct for guiding clinical practice, thus it is vital to consider how attachment style impacts upon the process and subsequent outcomes of psychological therapy. Consistent with this idea, the last twenty years has been marked by a rise in research that considers the application of attachment theory to psychotherapy (see Berant & Obegi, 2009; Levy & Kelly, 2009, for reviews) although differences in how attachment is conceptualised and inconsistent findings highlight the need for further investigation.

Attachment patterns are considered to be self-perpetuating, such that interpersonal interactions elicit behaviours from others that reinforce IWM's. This is pertinent to the therapeutic process as it proposes that the interaction between the client and therapist will be influenced by the client's perception of the therapist and the therapist's perception of the client (Liotti, 2002). Norcross (2002) posited that clinicians are aware that individuals respond differentially to different treatment

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<sup>3</sup> The term psychotherapy is used in reference to all modalities of psychological therapy.

modalities and different therapeutic relationships. In this regard, attachment theory lends itself to establishing a greater understanding of variability in clinical presentation and the interaction of factors contributing to therapeutic outcomes.

Despite convincing theoretical underpinnings, very little empirical evidence is available to support the role of therapist attachment style in the therapeutic process and fewer still have investigated the interaction between attachment styles of client and therapist (Dozier, Barnett & Cue, 1994; Tyrell, Dozier, Teague & Falloot, 1999). The current study aims to extend existing literature by considering the dyadic nature of attachment style in psychotherapy and how this influences the trajectory of clinical outcomes. Secondary to this, the relationship between attachment dimensions and coping strategies will be explored and considered in relation to their influence on the process of psychological therapy.

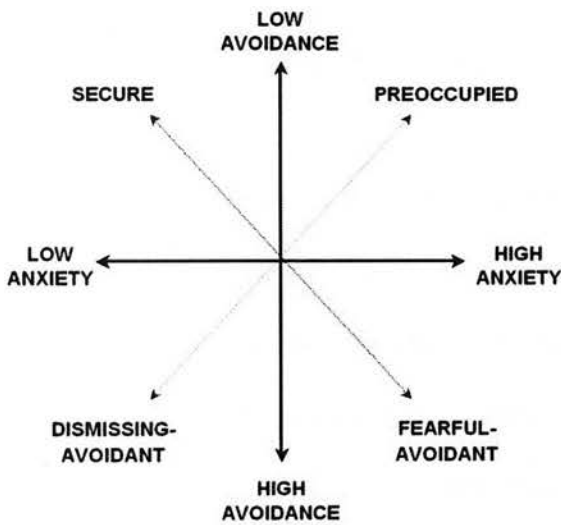
### Conceptualising Adult Attachment

Mary Ainsworth operationalised Bowlby's theory of attachment in a groundbreaking study which sought to classify the attachment strategy of young children when placed in a threatening situation (Ainsworth, Blehar, Waters and Walls, 1978). From this a tripartite typology was defined; secure, anxious-avoidant (deactivating) and anxious-ambivalent (hyperactivating) which was adopted by adult attachment theorists Hazen and Shaver (1987) and then expanded by Bartholomew and Horowitz (1991). By combining Bowlby's internal working models of self and other, avoidant attachment was differentiated as wither dismissing or fearful.

More recently researchers have moved from a typology of attachment style towards measurement along the two dimensions of attachment anxiety and avoidance. Figure

1. illustrates attachment styles within this two dimensional space and their corresponding prototype.

The area occupied in this two dimensional space is defined in terms of an individual level of attachment anxiety and avoidance. Attachment Security is assigned to the dimensional area where both anxiety and avoidance are low. This space is marked by a comfort with interpersonal closeness and a positive view of the self and others which promotes reliance on others and self competence.



**Figure 1. Two dimensional model of adult attachment style (Bartholomew & Horowitz, 1991)**

Insecure attachment can be understood by three remaining attachment styles. Anxious Attachment is assigned to the space where low avoidance and high anxiety co-occur and is defined by positive view of others and negative view of self. This is characterised by preoccupation with relationships and emotional closeness, alongside fears of abandonment and rejection.

Dismissing-Avoidant Attachment is assigned to the space where high avoidance and low anxiety co-occur and is defined by a negative view of others and a positive view of self. This is reflected by compulsive self-reliance and discomfort with interpersonal closeness.

The fourth region is marked by both high avoidance and anxiety and termed Fearful-Avoidant attachment style. This is defined by a negative view of self and others and a chaotic oscillation between approach-avoidance strategies.

### The role of Client Attachment Style

The majority of research in this area has directed attention to the role of client attachment style in psychotherapy and suggests that this is relevant to the course of therapy, via an ability to establish a therapeutic bond (see Barron & Schwannauer, 2012, for a review), and to treatment outcomes (Berant & Obegi, 2009). It has been found that securely attached clients demonstrate a greater propensity to engage in therapy and show greater improvements as a result (Dozier, 1990). Attachment security is conceptualised as holding positive mental representations of self and others and has been found to predict strong therapeutic alliance throughout treatment (Kanninen et al., 2000; Smith et al., 2010) and optimal therapeutic outcomes (Pilkonis, 1988; Strauss et al., 1999) through open, collaborative, proactive and trusting interactions. However, other findings suggest that attachment security does not lead to greater treatment gains (Cyranowski et al., 2002; Fonagy et al., 1996) thus the relationship remains unclear.

As attachment insecurity has been implicated in the development of psychopathology (see Mikulincer & Shaver, 2007, for a review) it is more likely that there will be a greater proportion of insecurely attached individuals requiring help from mental health services. Attachment theory suggests that these individuals will experience greater levels of emotional distress and have most difficulty engaging with and utilising psychological input (Bowlby, 1982). The lack of empirical clarity surrounding the implications of insecure attachment for psychotherapy presents a real challenge in terms of how we best help those with the greatest needs.

### *Attachment Avoidance*

Theoretically, avoidant individuals value self-reliance and perceive others as unreliable and rejecting. From the outset they are less likely to seek psychotherapy or if they do, may have difficulty exploring distress, integrating therapist's comments and engaging with the therapeutic process. Consistent with this idea, Dozier and colleagues (2001) found avoidant individuals to be more rejecting of treatment, disclose less personal information, be less cooperative and engage in less help-seeking behaviours. In relation to treatment modality, avoidant individuals are more likely to feel alienated by interventions that focus on relationships and emotions (McBride et al., 2006). A resultant activation of the attachment system may then interfere with the process of treatment. The rigidity of their defensive style is thought to inhibit self disclosure in therapy and as a result therapeutic progress is hindered due to the time invested in establishing engagement (Dozier, 1990). It is suggested that this is likely to reduce an avoidant individual's response to brief psychological therapies, although this is likely to be their preference (Shorey & Snyder, 2006).



Contrary to this, Fonagy and colleagues (1996) found that those classified as dismissive on the AAI showed the best relative trajectory of symptomatic improvement through brief psychodynamic psychotherapy. It was felt that this may have been a consequence of higher rates of symptom expression prior to treatment and therefore greater gains upon engagement with the therapist.

### *Attachment Anxiety*

Alternatively, anxious individuals are likely to undervalue their own coping abilities, seek more support and appear more engaged with treatment through increased expression of affect and over reliance on the care-giver (Dozier, 1990). This has been supported by preliminary research (Connors, 1997; Mikulincer, 1995) although there is still a lack of clarity about how anxiously attached clients respond to therapy.

### *Attachment and Therapeutic Modality*

In terms of ‘what works best for whom’ there is some evidence to suggest preferential outcomes are dependent on the interaction between client attachment style and therapeutic model (see Shorey & Snyder, 2006, for a review). The findings are mixed with some advocating more favourable outcomes to treatment modalities which are more congruent with the individual’s underlying attachment mechanism and others suggesting incongruity as a vehicle of change. Avoidant individuals are characterized by a tendency to over-regulate affect and depersonalize their difficulties and it is speculated that they value cognition over emotion (Crittenden, 1997) and may be more suited to Cognitive Behaviour Therapy (CBT). Anxious individuals are considered to be overtly focused on emotions and the interpersonal context thus more suited to Interpersonal Psychotherapy (IPT) (McBride et al.,

2006). Other findings suggest that it may be beneficial to facilitate change by offering a non-complementary model (Hardy et al., 1999; Siles et al., 1998). Overly emotional anxious patients may benefit more from emotionally containing interventions, and emotionally cut off patients may benefit by enabling affective expression and interpersonal connection (Hardy et al., 1999)

### Therapist Attachment Style

Bowlby (1982) expressed not only the relevance of client attachment in the therapeutic relationship, but suggested that therapist attachment style would also impact on their ability to provide a 'secure base' for clients experiencing distress. A relatively small amount of literature has considered the role of clinician attachment in psychotherapy. Dozier, Cue and Barnett (1994) found that securely attached clinicians were more attuned to what a client was 'pulling for' (a therapist response that would reinforce pre-existing working models) and feel more comfortable providing the opposite response. Insecurely attached clinicians were more likely to reinforce established patterns of relating by meeting the dependency needs of preoccupied individuals and being more superficial with dismissing clients. Although therapists have been found to present largely secure/autonomous attachment models (Tyrell et al., 1999; Dozier et al., 1994) there is significant variation along the two dimensional constructs of avoidance and anxiety, and individual differences in the use of preoccupied versus dismissive strategies (Dozier et al., 1994).

## The Therapeutic Attachment Dyad

One of Bowlby's key concepts was that each partner in the dyad builds an internal representation of the other. Evidence supporting interaction effects comes from a small number of studies (Berzins, 1977; Dozier et al., 1994; Tyrell et al., 1999.). Tyrell and colleagues (1999) found that utilising client and therapist attachment differences improved self reported quality of life following psychotherapy, and suggested that this was a function of facilitating change through providing a non-complementary response. They found that more deactivating (avoidant) clients reported greater outcomes with therapists who were less deactivating (more anxious) in terms of quality of life, therapeutic alliance and therapist rated functioning, but not in terms of psychological distress. This was also the case for less deactivating clients and more deactivating therapists. Similarly Dozier et al., (1994) found case managers were more responsive to clients with IWM's that contradicted their own. Dozier argued that as clinicians we should be aware of our own attachment style and how it influences therapeutic interactions, rather than being driven by the self perpetuating interactions of the patient.

In line with the notion that the provision of a therapeutic response that challenges IWM's is more beneficial to patients, we would expect to observe a shift in attachment patterns as a result. Indeed, there is some evidence that attachment insecurity can change as a result of psychotherapy (Frayley & Shaver, 2000; McBride et al., 2006), although these findings are inconsistent.

## Attachment and Coping

A recent review that considered the relationship between attachment style and preferential coping responses (Risk & Schwannauer, 2013) found some evidence suggesting that attachment theory provides a conceptual framework for understanding individual's responses to threat. Findings were consistent with theoretically derived assumptions about the role of IWM's in determining how individuals would cope with distress. Those with positive internal working models of self and others (securely attached) were more likely to employ flexible use of problem-focused coping and social support seeking, whilst those with a negative models of self (preoccupied and fearful-avoidant) were more likely to seek social support, be more emotion-focused and use escape-avoidance strategies. Individuals who reported higher attachment avoidance (dismissive-avoidant) were less likely to use social support and emotion focused coping and more likely to opt for self-reliant or disengaging coping strategies. This has consequences for an individual's help seeking behaviour and ability to engage in the therapeutic process, thus is relevant to understanding underlying mechanisms which may contribute to the course and outcomes of psychological therapy.

### Study Aims

The current study aims to (i) describe a sample of individuals presenting to mental health services for psychological intervention, and (ii) add to existing literature by exploring the interaction between patient and therapist attachment styles as a potential moderator of clinical outcomes. Clinical outcomes will be considered in

terms of symptomatic relief, therapeutic engagement and changes in attachment dimensions.

Two main research hypotheses were developed in relation to attachment dimensions and clinical outcomes in psychological therapy:

*Hypothesis 1.*

Individual attachment style will predict baseline symptom severity and outcomes following psychological therapy. This was broken down to make the following predictions;

1a Attachment anxiety and avoidance will be related to greater severity of symptoms prior to treatment.

1b Lower levels of attachment anxiety and avoidance will be related to greater symptomatic recovery.

1c High attachment avoidance will be related to reduced therapeutic engagement.

*Hypothesis 2.*

Therapist and patients scores on attachment dimensions will interact to influence engagement and clinical outcomes. From this the following predictions were made;

2a Therapists reporting higher rates of attachment anxiety will demonstrate greater engagement and clinical outcomes with clients reporting higher rates of attachment avoidance.

2b Therapists reporting higher rates of attachment avoidance will demonstrate better engagement and clinical outcomes with clients reporting higher rates of attachment anxiety.

2c Pairing clients with clinicians of the opposite attachment pattern will result in a corresponding shift along the attachment dimensions of anxiety and avoidance.

A secondary research hypothesis was formed by considering the influence of attachment style on individual coping strategies and the impact this has on therapeutic engagement:

*Hypothesis 3.*

Client attachment style will predict an individual's underlying coping strategies and level of psychological distress.

3a Higher attachment anxiety will be related to increased social support seeking and greater use of emotion-focused and dysfunctional coping.

3b Higher attachment avoidance will be related to less social support seeking and greater use of problem-focused coping.

3c Higher rates of dysfunctional coping will be associated with higher levels of psychological distress before and after treatment.

## Methodology

### Design

As the key foci of the study were the processes taking place in therapy, a naturalistic non-experimental design was employed to ensure limited interference in the therapeutic process. This enabled clinicians to provide patients with treatment as usual (TAU) to; (i) overcome potential ethical issues surrounding the provision of treatment for patients, and (ii), to exclude introducing confounding variables which may affect the therapeutic relationship and clinical outcomes. A quantitative prospective-cohort design was used, although some measures were administered cross-sectionally in order to test the research hypotheses. The current study was reviewed as part of a larger study by the South East Scotland Research Ethics Committee (group 1) and granted ethical approval in August 2011 via the Integrated Research Application System (IRAS). Local ethical approval was sought and granted by NHS Lothian Research and Development Office.

### Participants

This study exists as a constituent part of a larger study to explore the relationship between the therapeutic attachment dyad, therapeutic alliance and outcomes in psychological therapy. The first phase of this study has been concerned with the role of the therapeutic attachment dyad in the development of the therapeutic alliance and early engagement in therapy (Barron and Schwannauer, 2012). The current study intends to consider the role of the therapeutic attachment dyad in clinical outcomes and longer term engagement with psychological therapy. Both studies analysed data from the same pool of participants.

Given the aim of the current study was to explore the therapeutic attachment dyad, both clinicians conducting therapy and their respective patients were asked to participate in the study.

### *Clinician Participants*

NHS Lothian clinicians trained in the delivery of psychological therapies within adult mental health services, were eligible to participate in the current study. No exclusion was made in terms of; clinical setting, therapeutic approach, professional role, background and stage of training. A total of 128 clinician research packs were distributed across the study area, which yielded 38 completed consent forms in favour of participation (30%). The actual number of clinicians providing client data was 26, which provided a clinician recruitment rate of 20 %.

### *Patient Participants*

Adults aged 18 years and above commencing a new episode of psychological therapy within NHS Lothian were eligible to participate in the study. No upper age limit was set and no exclusion criteria were defined in terms of diagnosis or presenting problem.

### *Procedure*

Clinicians were initially recruited via delivery of several promotional presentations that emphasised the clinical relevance of the study. Participating clinicians were asked to provide all new patients with a research pack consisting of; a patient information form, a consent form and baseline measures. Packs included colour coded research measures to ease clinician distribution, with each colour having a



designated time for delivery. The current study focused on clinical outcomes and hence relied on measures being administered at the outset and termination of the treatment episode, although mid treatment measures were administered as part of the wider study.

## Measures

### *Measure of Psychological Distress/Symptom Severity*

The Clinical Outcomes in Routine Evaluation-Outcomes Measure (CORE OM; CORE Systems Group 1998) is a self-reported measure of psychological distress that is routinely administered within local adult mental health services and widely acknowledged as a reliable outcome measure for psychological therapies (Barkham et al., 2001). The CORE-OM is comprised of 34 items separated into the four domains of *well-being*, *problems/symptoms*, *life functioning*, and *risk* to self and others. Items are scored on a five-point scale, with respondents asked to rate the frequency of each item in terms of how they have felt over the past two weeks from 0 (not at all) to 4 (most of the time). Scores are calculated as mean values in each domain, with greater psychological distress indicated by higher scores. With high internal consistency (.75-.95) and test re-test reliability (0.90), (Evans et al., 2002) the CORE-OM was considered appropriate for the purposes of the current study. Alpha for the current was high ( $\alpha = 0.96$ ).

### *Measure of Coping Style*

The Coping Orientations to Problems Experienced scale (COPE; Carver, C. S., Scheier, M. F., & Weintraub, J. K., 1989) is a self-reported, theoretically grounded measure of a broad range of coping responses. The inventory is comprised of 60

items divided into 15 scales of functional and dysfunctional coping; *Positive reinterpretation and growth*, *Mental disengagement*, *Focus on and venting of emotions*, *Use of instrumental social support*, *Active coping*, *Denial*, *Religious coping*, *Humour*, *Behavioural disengagement*, *Restraint*, *Use of emotional social support*, *Substance use*, *Acceptance*, *Suppression of competing activities*, and *Planning*. Participants were asked to rate each item in terms of the extent of which they use each coping response in times of stress; 1 (I usually don't do this at all) to 4 (I usually do this a lot). This provides a measure of the respondent's dispositional style of coping. Coolidge, Segal, Hook and Stewart (2000) first operationalised the COPE in relation to problem-focused, emotion focused and dysfunctional coping. Cronbach's alpha reliability coefficients were calculated for each scale and found reasonable internal consistency (0.62-0.92). Internal reliability for the current study was good with  $\alpha = 0.85$ .

The Experiences in Close Relationships-Revised (ECR-R; Fraley, Waller, and Brennan, 2000) is a revision of Brennan, Clark and Shaver's (1998) original Experiences in Close Relationship Scale (ECR). It is a self-report two-dimensional measure of adult attachment style assessing; attachment related anxiety (i.e. the degree of an individual's security versus insecurity about the availability and responsiveness of others) and attachment related avoidance (i.e. the degree of an individual's discomfort being close to others versus security depending on others) and is comprised of 36 statements concerning the experience of close relationships which are rated along a 7 point scale from; 1 (disagree strongly) to 7 (agree strongly) allowing for a neutral point 4. Individuals mean scores are calculated on both attachment dimensions rather than providing an attachment style classification.

Higher scores on each dimension are indicative of higher levels of attachment anxiety and avoidance. The wording of several items of the ECR-R were adapted to elicit responses within the context of any close relationships rather than solely romantic relationships; e.g. "*My partner only seems to notice me when I'm angry*" changed to "*Others only seem to notice me when I'm angry*".

Studies have reported high validity and reliability with internal consistency on both dimensions; anxiety =.91 and avoidance =.94 (Brenan et al., 1998). Cronbach's alpha for the current study suggested high internal reliability on both attachment anxiety ( $\alpha = 0.93$ ) and attachment avoidance ( $\alpha = 0.92$ ).

### *Measure of Therapeutic Engagement*

Therapeutic engagement was measured in relation to rate of overall attendance during treatment and discharge reason; *Treatment complete* or *Disengaged*. Data on disengagement were also collected and individuals categorised as "end disengagement" and "early disengagement". Data were provided by participating clinicians or through the local NHS Patient Information Management System (PiMS).

### *Analysis*

A priori power calculation was carried out to estimate the required sample size to test the hypotheses. A medium effect size was selected based on previous research (Smith et al, 2010). Using a university recommended online sample size calculator for regression analysis the following calculation was performed:  $p$  value = 0.05, 2 independent variables, a moderate effect size  $f^2=0.15$  and a conventional statistical

power level of 0.8. This yielded a required sample size of 67. With an estimated staff sample size of 38 therapists we had expected to achieve a patient sample size of 80-120 participants, which would have allowed for a moderate attrition rate. Overall 65 patients consented to take part in the study with 42 (64%) participants completing treatment. Of those completing treatment, outcome measures were received for 30 individuals, reflecting an overall attrition rate of 53.8%. As a result the planned analysis for clinical outcomes was adapted. Pearson product moment correlations were conducted to test the relationship between continuous variables. One-way ANOVA and independent samples t-tests were used to compare the means between groups. Cases were excluded pair-wise during analysis to maximise the dataset. Analysis was conducted using SPSS (version 17).

## Results

Preliminary statistics were carried out to describe the study sample and test the normality of distribution. Distribution normality was qualified by normal Q-Q plots and the Kolmogorov smirnov statistic. Patient measures were found to be normally distributed, although significant non-normality was found in therapist ratings of attachment anxiety and avoidance. Log transformations were carried out on these two variables to increase normality of distribution and meet parametric assumptions.

### Sample Characteristics

In total 65 individuals consented to participate in the study of which 47 were female (72.3%) and 18 were male (27.7%). The age ranged from 19-56 years old (mean=39.38, SD =). Total CORE scores ranged from 8-124 (mean=62.62, SD = 29.52).

A total of 38 clinicians consented to participate in the study, 32 (94.2%) were female, with a mean of 10.89 years experience ( $SD=8.65$ ), ranging from 0-31 years. A range of therapeutic models were employed by clinicians with preferential use of CBT reported for 30 (78.9%) clinicians. Other therapeutic models included Cognitive Analytic Therapy (15.8%), solution-focused and mindfulness approaches (both 2.6%)

Patient attachment anxiety ranged from 1.33-6.67 (mean = 4.46,  $SD = 1.21$ ) and attachment avoidance ranged from 2.11-6.67 (mean = 4.40,  $SD = 1.17$ ). Clinician attachment anxiety ranged from 1-3.83 (mean = 1.72,  $SD = 0.70$ ) and attachment avoidance range from 1.44-4.11 (mean = 2.26,  $SD = 0.62$ ). This reflected low rates of attachment anxiety and avoidance in the clinician sample, and hence greater attachment security.

Correlation analyses revealed no relationship between demographic variables and dependent variables.

### Clinical Outcomes

Paired-samples t-tests were conducted to compare levels of symptom severity and attachment anxiety and avoidance before and after psychological therapy. There was a statistically significant decrease in CORE scores from pre-intervention ( $M=55.14$ ,  $SD=26.52$ ) to post-intervention ( $M=33.07$ ,  $SD=24.53$ ),  $t(28)=5.57$ ,  $p<0.0005$  (two-tailed). The mean decrease was 21.36 with a 95% confidence interval ranging from 13.07 to 29.64. The eta squared statistic (0.45) indicated a large effect size<sup>4</sup>.

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<sup>4</sup> Guidelines for interpreting Eta values proposed by Cohen 1988, pp.284-7

A statistically significant decrease in attachment anxiety was observed from pre intervention to post intervention;  $t(30)=3.066$ ,  $p=0.005$  (two-tailed) with a mean decrease of 0.572 with 95% confidence interval ranging from 0.19-0.95. The eta square statistic (0.28) indicated a large effect size.

No significant change was found for attachment avoidance scores. Further inspection of change in attachment dimensions revealed variation in the direction of attachment anxiety and avoidance change. For attachment anxiety, a reduction was observed for 24 individuals (77.4%) and an increase observed for 7. For attachment avoidance, 17 (54.8%) reported a reduction in avoidance and 14 reported an increase.

In terms of service engagement, 42 participants completed treatment (64.6%), 14 disengaged (21.5%), 3 were still active (4.6%) and 3 had changed therapist during treatment (4.6%). Engagement data were missing for 3 individuals whose therapists had left post during the study period. Attendance rates were available for 58 participants. The mean attendance rate was 81.6%, with a mean CNA rate of 10.2% and a mean DNA rate of 8.2%.

## Hypothesis 1.

### *1a. Individual attachment dimensions and baseline symptom severity.*

To tests for a relationship between individual attachment dimensions and baseline levels of psychological distress, Pearson product moment correlations were conducted and are reported in Table. 1. Both attachment anxiety and avoidance were highly positively correlated with baselines levels of psychological distress, across all CORE domains.

Table 1. Correlations between attachment dimensions and baseline CORE scores

N =61	CORE total		CORE Wellbeing		CORE Problems		CORE Functioning		CORE Risk	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Attachment	<b>.530</b>	<b>&lt;.0005</b>	<b>.578</b>	<b>&lt;.0005</b>	<b>.456</b>	<b>&lt;.0005</b>	<b>.553</b>	<b>&lt;.0005</b>	<b>.347</b>	<b>&lt;.0005</b>
Anxiety										
Attachment	<b>.486</b>	<b>&lt;.0005</b>	<b>.379</b>	<b>.003</b>	<b>.393</b>	<b>.002</b>	<b>.551</b>	<b>.002</b>	<b>.440</b>	<b>&lt;.0005</b>
Avoidance										

To ascertain if patient attachment anxiety and avoidance were predictive of symptom severity a regression analysis was carried out using a standard ‘Enter’ model with total CORE score as the dependent variable and patient anxiety and patient avoidance as two independent variables. The regression model was significantly predictive of symptoms severity;  $F(2,60) = 19.29$ ,  $P<0.0005$ , with an adjusted  $R_2$  of 0.38 explaining 38% of the variance. Table 2. outlines the values which indicate that both attachment patterns are predictive of initial symptom severity, although the  $\beta$  coefficient for attachment anxiety indicates a significantly stronger unique contribution. Colinearity diagnostics indicated no multicollinearity, with an  $r = .29$  indicating low shared variance. Mahalanobis Distance was examined to ensure no outlying residuals and was below the critical value of 13.82 for 2 independent variables.

Table 2. Regression analysis for attachment dimensions and baselines CORE scores.

N=61	B	SE B	$\beta$	p	t
Attachment Anxiety	<b>10.26</b>	<b>2.59</b>	<b>.423</b>	<b>&lt;.0001</b>	<b>3.97</b>
Attachment Avoidance	<b>9.03</b>	<b>2.67</b>	<b>.365</b>	<b>.001</b>	<b>3.34</b>

*1b. Individual attachment dimensions and treatment outcomes.*

No significant relationship was found between attachment anxiety and avoidance and total CORE scores following psychological intervention. Analysis of CORE domain scores revealed a significant correlation between attachment anxiety and CORE risk scores,  $r=.388$ ,  $p=.028$ , although when entered into a regression equation was not found to be a significant predictor;  $F(2,26)=2.34$ ,  $p=0.12$ .

To calculate amount of change in the repeated measures, a continuous change variable was constructed for CORE total and domain scores and for both attachment dimensions. This was calculated by subtracting outcome scores (following treatment) from baseline scores. As a result positive change scores reflected a reduction in symptoms and attachment scores and negative change scores reflected an increase. Correlation analysis indicated that baseline attachment avoidance was significantly positively correlated with total CORE change scores,  $R^2=0.23$ , suggesting that higher baseline scores of attachment avoidance were related to greater reduction in symptom severity. These findings were only partially replicated for attachment anxiety, with higher rates of attachment anxiety correlating with a greater reduction in CORE wellbeing and risk scores (see Table 3. for results).

Effects for a reduction in attachment anxiety was found, with higher levels of attachment anxiety being associated with greater reduction in anxiety,  $R^2=0.17$ . This reflects a small effect size.

Furthermore, levels of change in attachment dimensions were related to the level of change in psychological distress. Greater reduction in attachment avoidance was associated with greater reduction in CORE total scores,  $r=.547$ ,  $p=.003$ , specifically



within the domains of problems/symptoms,  $r=.491$ ,  $p=.009$ , functioning,  $r=.591$ ,  $p=.001$ , and wellbeing,  $r=.404$ ,  $p=.037$ .

Greater reduction in attachment anxiety was associated with greater reduction within the domain of functioning,  $r=.510$ ,  $p=.007$ , and wellbeing,  $r=.564$ ,  $p=.002$ .

**Table 3. Correlation between attachment dimensions and changes in psychological distress and attachment anxiety and avoidance.**

N=30	Attachment Anxiety		Attachment Avoidance	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
CORE Total Change	.231	.227	<b>.487</b>	<b>.007</b>
CORE Wellbeing Change	-.134	.488	.193	.315
CORE Problem Change	-.003	.989	<b>.509</b>	<b>.005</b>
CORE Functioning Change	.300	.114	<b>.402</b>	<b>.031</b>
CORE Risk Change	<b>.431</b>	<b>.020</b>	.366	.051
N=28				
Attachment Anxiety Change	<b>.411</b>	<b>.022</b>	.149	.423
Attachment Avoidance Change	.149	.423	.337	.064

### *1c. Individuals attachment and engagement.*

To test whether attachment dimensions were associated with therapeutic engagement, correlations were carried out between attachment and attendance rates.

No significant relationship was found.

Independent sample t-tests were then carried out to compare the mean level of attachment dimensions in each of the dichotomous engagement categories; discharge reason and disengagement type. Again no significant differences were found.

## Hypothesis 2.

### *2a, 2b, 2c. Therapist attachment style and Clinical Outcomes*

#### *Preliminary analysis*

Correlation analysis found no relationship between therapist's attachment dimensions and patient CORE scores or CORE and attachment change scores.

As the initial recruitment rate fell below what was expected, the planned analysis of moderated regression would have been significantly underpowered and was therefore not conducted.

To test the hypothesis that mismatching patient and therapist attachment style would influence clinical outcomes, a dichotomous attachment variable was formed in relation to each individual's dominant attachment style. Individuals with attachment anxiety higher than avoidance were categorised as anxious, and those higher in avoidance were categorised as avoidant. The same process was carried out for therapists and a new product term created to categorise the therapeutic attachment dyad as either an; anxiety match (N=5); avoidance match (N=18) or mismatch (N=35). A match indicated both therapist and patient shared the same attachment dominance, and a mismatch indicated different attachment dominance.

A one-way between groups ANOVA was conducted to compare the means of each group by entering all change variables and attendance rates into the dependent list and therapeutic attachment dyad into the factor box. The ANOVA for rate of attendance was significant,  $F(2,55)=3.83$ ,  $p=.028$ , with an effect size calculated using eta squared at 0.12, indicating a large effect size. Post-Hoc comparisons using Tukey

HSD indicated that the mean rate of attendance in the avoidance match group ( $M=72.08$ ,  $SD=27.04$ ) was significantly less than the mismatch group ( $M=85.37$ ,  $SD=11.53$ ). Anxiety match ( $M=89.3$ ,  $SD=10.78$ ) did not differ significantly from the other two therapeutic dyad groups. This may be accounted for by the small number in the anxiety-match group. There were no other significant differences between therapeutic attachment dyad groups on measures of outcomes or change scores.

### Hypothesis 3.

Pearson correlations were conducted to test the relationship between attachment dimensions and dispositional coping styles. The results are reported in Table 4.

#### *3a. Attachment anxiety and coping response.*

Attachment anxiety was significantly and positively correlated with behavioural disengagement,  $r = .413$ ,  $p = .01$ , and marginally significantly positively correlated with denial,  $r = .264$ ,  $p = .05$  (dysfunctional coping). Marginally significant negative correlations were also found for attachment anxiety with active coping (problem-focused coping),  $r = -.271$ ,  $p = 0.05$  and acceptance (emotion-focused coping)  $r = -.323$ ,  $p = 0.05$ . This suggests that greater levels of attachment anxiety are related to increased use of dysfunctional coping strategies and a reduction in more adaptive self directed problem-focused coping. Unexpectedly no significant relationship was found for social support seeking.

#### *3b. Attachment avoidance and Coping*

No positive correlations were found between attachment avoidance and coping strategies. There were however significant negative correlations with; the focus on

and venting of emotions,  $r=-.362$ ,  $p=0.01$ , instrumental social support,  $r=-.522$ ,  $p=0.01$  and emotional social support,  $r=-.617$ ,  $p=0.01$ . It was marginally significant negatively correlated (all  $p=0.05$ ) with active coping  $r=-2.83$ , religion  $r=-.256$  and planning  $r=-.265$ .

Further correlations were conducted between attachment dimensions and the broader coping domains of problem-focused, emotion-focused and dysfunctional coping as proposed by Folkman & Lazarus (1984). Results are outlined in Table 5. As expected, attachment anxiety was associated with greater use of dysfunctional coping,  $R^2 = .15$ , accounting for 15% of the variance. Contrary to previous findings attachment anxiety was not associated with emotion focused coping. A highly significant negative correlation was found between attachment avoidance and problem focused coping,  $R^2=0.23$  and emotion focused coping,  $R^2=0.20$ .

These results reflect a medium effect size between attachment dimensions and coping strategies.

Three separate hierarchical regression analyses were carried out to test independent associations between coping and attachment. Attachment avoidance was a significant predictor of emotion-focused coping and problem-focused coping, whilst attachment anxiety was a significant predictor of dysfunctional coping (see Table 6. for results). That is that higher levels of avoidance predicted less use of problem focused ad emotion focused coping whilst higher levels of anxiety predicted greater use of dysfunctional coping.

Table 4. Correlation matrix for attachment dimensions and coping strategies

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Attachment Anxiety	Attachment Avoidance
1. mental disengagement	.006	.040	.082	.171	.174	.141	.166	.032	-.119	.194	.002	.013	.072	.142	.128	-.009
2. focus / venting emotions		.545**	.007	.197	-.033	.283*	.141	.563**	.188	.054	.216	.067	.000	-.111	.213	-.362**
3. instrumental s.s.			.377**	.315*	.232	-.054	.012	.798**	.098	.154	.265*	.395**	.096	.029	-.017	-.522**
4. active coping				.220	-.019	-.464**	.108	.218	-.128	.393**	.216	.714**	-.062	.358**	-.271*	-.283*
5. religion					.079	-.045	.016	.330**	-.174	.060	.183	.194	.032	.102	.154	-.256*
6. humour						-.023	.053	.107	-.067	.107	.000	-.054	.116	-.014	.194	-.112
7. behavioural disengagement							.246	.042	.255	.008	.263*	-.368**	.202	-.298*	.413**	.204
8. restraint								.089	.160	.499**	.306*	.203	.268*	.143	-.024	-.170
9. emotional s.s.									.050	.055	.193	.241	.039	-.009	-.035	-.617**
10. substance use										.034	.294*	.006	.184	-.005	.101	.163
11. acceptance											.140	.288*	-.119	.159	-.323*	-.214
12. suppression of competing activities												.146	.420**	.114	.158	-.156
13. planning													.050	.365**	-.250	-.265*
14. denial														.299*	.264*	-.081
15. positive reinterpretation															-.151	-.085

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 5. Attachment dimensions and Coping

N=65	Problem-focused coping		Emotion-focused coping		Dysfunctional coping	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Attachment anxiety	-.144	.281	-.107	.415	.389	.002
Attachment avoidance	-.480	<.0005	-.445	<.0005	-.028	.834

Table 6. Regression analysis of attachment dimensions and coping strategies.

	Attachment anxiety					Attachment Avoidance				
	<i>B</i>	$\beta$	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>t</i>	<i>p</i>
Emotion focused	.325	.04	1.02	.316	.753	-3.897	-.458	1.06	-3.661	0.001
Problem focused	.082	.011	.934	.088	.93	-3.75	-.483	.969	-3.87	<.0005
Dysfunctional Coping	2.98	.444	.859	3.47	.001	-1.18	-.170	.891	-1.33	.189

### 3c. Coping and Psychological Distress

To explore the relationship between coping strategies and psychological distress and improvement, correlations were carried out between problem focused, emotion focused and dysfunctional coping and baselines CORE scores, changes in CORE scores and attachment dimensions and attendance rates.

As hypothesised, greater reliance on dysfunctional coping was related to higher levels of psychological distress prior to treatment. Negative correlations were found between emotion-focused coping and CORE functioning scores, suggesting that greater use of emotion-focused coping results in poorer functioning.

Table 7. Correlations between Coping strategies, symptoms severity and engagement

		Emotion focused coping	Problem Focused coping	Dysfunctional coping
Rate of attendance	<i>r</i>	.076	.225	.010
	<i>p</i>	.586	.110	.941
CORE A Total	<i>r</i>	-.225	-.128	<b>.444**</b>
	<i>p</i>	.096	.354	<b>.001</b>
CORE A Wellbeing	<i>r</i>	-.122	-.073	<b>.448**</b>
	<i>p</i>	.369	.599	<b>.001</b>
CORE A Problem	<i>r</i>	-.143	-.076	<b>.450**</b>
	<i>p</i>	.294	.585	<b>.001</b>
CORE A Functioning	<i>r</i>	<b>-.323*</b>	-.204	<b>.377**</b>
	<i>p</i>	<b>.015</b>	.139	<b>.005</b>
CORE A Risk	<i>r</i>	-.177	-.050	<b>.372**</b>
	<i>p</i>	.192	.720	<b>.005</b>
CORE Change Total	<i>r</i>	-.280	<b>-.396*</b>	-.005
	<i>p</i>	.141	<b>.033</b>	.979
CORE Change Wellbeing	<i>r</i>	-.112	-.332	<b>-.411*</b>
	<i>p</i>	.563	.079	<b>.027</b>
CORE Change Problem	<i>r</i>	-.332	-.316	-.072
	<i>p</i>	.079	.095	.710
CORE Change Functioning	<i>r</i>	-.227	<b>-.497**</b>	.033
	<i>p</i>	.237	<b>.006</b>	.864
CORE Change Risk	<i>r</i>	-.131	-.008	.054
	<i>p</i>	.500	.967	.782
Avoidance Change	<i>r</i>	-.127	-.317	-.053
	<i>p</i>	.497	.082	.778
Anxiety Change	<i>r</i>	-.003	-.176	-.036
	<i>p</i>	.986	.344	.848

In terms of clinical outcomes, dysfunctional coping was associated with less change in CORE wellbeing scores, and not overall CORE change scores. Surprisingly there was a significant negative correlation between reliance on problem-focused coping

and reduction in total CORE scores, which seemed to be accounted for by less improvement in CORE functioning score.

## Discussion

### Patient attachment styles and outcomes

As hypothesised higher levels of client attachment anxiety and avoidance were predictive of increased levels of psychological distress prior to commencing psychological therapy. This relationship was slightly stronger for attachment anxiety suggesting it makes a larger contribution to psychological distress than avoidance. Theoretically, this is consistent with the concept of hyper-activation of affect (Cassidy & Kobak, 1997), whereby individuals whose attachment needs have not been reliably met by an attachment figure, over amplify their affective experience and expression to ensure help from social supports.

No relationship was found between attachment dimensions and reported levels of psychological distress following psychological intervention, however when examining this as a change variable, a positive relationship was found between higher levels of attachment avoidance at baseline and greater reduction in psychological distress. This was found for all CORE-OM dimensions but was not fully replicated for attachment anxiety, which was only positively correlated with a reduction in the domains of Wellbeing and Risk. This indicated that greater reduction in psychological distress was experienced by those with higher levels of attachment avoidance. This seems somewhat counterintuitive but has previously been observed (Fonagy et al. 1996) and could be explained by the underlying psychological mechanisms which are delineated from IWM's. It could be hypothesised that in order



to overcome positive representations of the self and rely on another for support, levels of psychological distress required to prompt help-seeking are appraised as overwhelming and unmanageable. Typical under reporting of symptoms may then be observed in a bid to cut therapy short and terminate the therapeutic relationship on a conscious level. It could also be proffered that the process of therapy which is thought to threaten IWM's of the self as positive and self reliant results in deactivation of the attachment system and subsequent over regulation of negative affect, in a bid to maintain the status quo, again this is likely to impact upon self reports of levels of distress.

Changes in attachment anxiety could be explained within the context of the therapeutic relationship. The availability and reliability of the therapist to contain and explore distress would not directly challenge a positive internal working model of others but may enable deactivation of the attachment system, which results in less attachment preoccupation. Alternatively this may take place by challenging negative IWM's of the self, by providing a set of skills during therapy which, instil a sense of self-efficacy and mental representation of the self as able to manage distress.

No significant reduction in attachment avoidance in the study is consistent with previous findings that suggest attachment avoidance is less malleable. Connors (1997) found that dismissing individuals, those high on attachment avoidance, are often less likely to seek psychological help, but if they do, benefit less. It is thought that the positive mental representations of the self are threatened by help seeking, and that they may resist the process of therapy by being rigid and defensive. This often results in their preference for short-term interventions that are unable to challenge IWM's.

## Therapist attachment styles and clinical outcomes

Dozier et al. (1994) hypothesised that secure therapists were more aware of client's self-perpetuating interpersonal interactions and felt more comfortable providing a non-complementary response to challenge IWM's. The inability of the current study to find any relationship between therapist attachment styles on changes in psychological distress could be explained by the low levels of variability in attachment dimensions reported within the clinician sample. It could also be that despite the recommendation that therapists conduct TAU, by involvement in the study they were primed to consider attachment principles over the course of therapy more than they would in usual practice.

Of interest was the finding that a dyadic match of attachment avoidance resulted in significantly reduced rate of attendance at appointments. This lends some support to the hypothesis that a mismatch in attachment patterns is more beneficial to patients as it enables IWM's to be challenged. This finding suggests that the tendency for avoidant individuals to view others as unreliable and rejecting is reinforced by more avoidant therapists. Perhaps through less proactive efforts from the avoidant therapist to engage avoidant patients, or by responding more dismissively to their difficulties.

## Attachment and Coping

The current study is one of the few to consider the relationship between attachment dimensions and dispositional coping strategies within a clinical psychology population. The findings support previous studies within the disciplines of social and health psychology, particularly in those where attachment has been measured as a dimensional construct (Berry & Kingswell, 2005; Holmberg et al., 2011). These

seemed to be consistent with theoretical underpinnings provided by the concept of IWM's of the self and other. Indeed, post hoc analysis using t-tests found a significant effect for IWM's and coping styles. These were categorised using the median attachment anxiety and avoidance scores as a cut off to categorise positive and negative internal working models of self (anxiety dimension) and other (avoidance dimension). This revealed a difference in means score for dysfunctional coping  $t(57) = -1.994, p=0.51$  which just failed to reach significance for IWM of self. Those with a positive model of self reported less use of dysfunctional coping ( $M=39.1667, SD=7.63$ ) than those with a negative model of self ( $M=43.31, SD=8.32$ ). A significant difference was found for model of other,  $t(58)=2.64, p=0.01$ , in terms emotion-focused coping, with those holding a positive model of other using more emotion-focused coping ( $M=44.07, SD=9.12$ ) than those with a negative model of other ( $M=37.56, SD=9.92$ ). Similarly, a significant difference in problem-focused coping was found,  $t(56)=3.65, p=0.001$ , with those with a positive model of other reporting greater use of problem focused coping ( $M=50.72, SD=8.73$ ) than those with a negative view of other ( $M=43.31, SD=8.04$ ). This may be explained by the inclusion of instrumental and emotional social support on both of these coping styles. This does not provide us with a clear pattern of coping strategies utilised with increasing attachment avoidance but indicates higher levels of attachment avoidance result in less emotional engagement and expression and less social support seeking for both practical and emotional support. Greater attachment avoidance, contrary to previous findings, was also associated with a reduction in problem-focused coping as reflected by active coping and planning. This may be because those who utilise problem focused coping are able to maintain levels of functioning, although we

would expect this to be reflected in a negative relationship between baseline CORE functioning and problem-focused coping which is not observed.

### Study Limitations

The major limitation of the current study was the sample size which was not adequately powered to fully test the research hypotheses.

The generalisability of the findings are also limited by the partially cross-sectional design of the study which does not allow causal inference to be made between attachment dimensions and coping strategies.

There was also the potential for bias in the sample. The non-normal distribution of attachment anxiety and avoidance of therapists reflected higher rates of attachment security within the clinician pool. Given the understanding many psychologists have of attachment theory, it is possible that those consenting to participate in the study were individuals who were comfortable with their attachment style.

It is also important to acknowledge the influence of level effects when interpreting the significance of outcomes in the current study. Symptomatic outcome was measured by calculating a change score by subtracting outcome CORE scores from baseline CORE scores, where higher scores reflect greater symptomatology and 0 is the bottom line. Effectively this results in greater room for improvement in those individuals presenting with higher levels of symptomatology on entry to the study. For example, an individual with a baseline CORE score of 10 will have a change score not exceeding 10, and therefore may be considered to have improved less than individuals with greater symptom severity.

A great deal of disagreement exists in the measurement of attachment construct owing to different conceptual models, methodology, instruction sets and varying item pools in self-reported questionnaires. Although opinions are converging upon a dimensional measure of attachment anxiety and avoidance, this is not without limitations. The ECR-R allows for a continuous trait-like measurement of attachment along the two dimensions of anxiety and avoidance, but has been found to be less sensitive at differentiating between individuals who are more secure (Fraley et al., 2000). Thus individuals who are more securely attached are measured with less fidelity than insecurely attached individuals.

During the development of the ECR no correlation between attachment anxiety and avoidance was observed. However, the current study found a significant correlation between the two attachment dimensions, which is likely to have had an impact on the current studies ability to detect differential effects. A recent meta-analysis of attachment measurements (Finnegan & Cameron, 2009) found attachment anxiety and avoidance correlated at the .20 level in samples using the ECR, and that this was higher in the ECR-R. Fraley et al., (2011) argue that although conceptually different they need not be mutually exclusive constructs. It could be that this reflects high rates of co-occurring attachment anxiety and avoidance, a pattern observed in those with a fearful-avoidant attachment prototype. This group have been found to experience greater difficulties in therapeutic engagement and recovery following the psychotherapy (Rubino et al., 2002)

The use of self-reported measures of attachment have also been criticised as they rely on accurate and conscious appraisals of an individual's experience. These are often

subject to response bias and may be subject to both conscious and unconscious interference from underlying psychological mechanisms as previously discussed.

There is also the question of what is actually being measured. In the field of individual differences it is considered parsimonious to ensure that new measures are not merely a duplication of the Big Five personality traits – Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. This has been considered to provide an overarching empirically based framework for understanding differences between people (John & Srivastava, 1999). Research which has sought to determine if this is the case, has indeed found relationships between attachment categories and the Big Five personality traits (Shaver & Brennan, 1992) and more recently with dimensional measures of attachment (Nofle & Shaver, 2006; Fraley et al., 2011). Correlations between attachment anxiety and Neuroticism have been observed at the 0.36 level, and between attachment avoidance and Agreeableness at the -0.35 level (Fraley et al., 2011). Further correlations were also observed across facets of the Big Five, although some authors posit that these findings are conceptually compatible with Bowlby's theory of Attachment and enable detailed nuances of different types of attachment insecurity to be unpicked (Nofle & Shaver, 2006).

More recently Fraley and colleagues (2011) demonstrated that measures of trait like attachment were more predictive of the Big Five personality traits than relationship-specific measures of attachment dimensions, which had greater predictive ability of intra and interpersonal outcomes. Again this adds emphasis to case for a more methodologically consistent approach to measuring attachment styles to ensure

findings are meaningful, and provide cumulative evidence which contributes to the our understanding of attachment dynamics.

Likewise, the use of standardized instruments for measuring coping, implies that individuals can be considered to cope with adversity using preferred strategies, and that these are constant over time and situation. Although the COPE can be used as a 'state' or 'trait' measure of coping, the current study used the COPE as a dispositional measure to assess to coping traits of individual's presenting to psychological services. Although this reduces the complexity of measuring the coping response, the cost is that it fails to acknowledge the importance of situation-specific coping. Furthermore, it does not pay respect to the stages or sequences of coping responses that may be employed in a given situation.

In terms of reliability of self-report responses, the COPE uses a frequency rating for each of the coping strategies rather than a forced choice between them. Therefore it becomes possible for an individual to report using all or none of the outlined coping strategies.

## Conclusion

The current study builds upon previous research, which posits the role of individual attachment patterns in the development of psychopathology and response to psychological therapy. Findings are also supportive of a change in attachment patterns as an outcome of psychological therapy. This suggests that the process of therapy may facilitate changes in mental representations of the self and others. Further research in this area would benefit from exploring if these changes can be maintained over time. It could be that the availability of the therapist during



psychological treatment enables a reduction in attachment anxiety, although whether this generalises to other attachment relationships is not known.

The evidence available presents an interesting case for the role of the attachment dyad in psychotherapy although highlights the need for further examination. Failure to consider the role of attachment theory as a dyadic construct within the clinical setting may result in meaningful findings being missed and undermine progression in understanding psychotherapy outcomes.

## References

Ainsworth, M.D.S., Blehar, M.C., Waters, E. & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.

Barron, A.C. & Schwannauer, M. (2012) Unpublished Manuscript. *The role of patient and clinician attachment styles on the psychological therapy process: A systematic review*.

Barron, A.C. & Schwannauer, M. (2012). Unpublished Manuscript. *Attachment in psychological therapy: An exploratory study into patient and therapist attachment patterns on engagement and therapeutic alliance*.

Bartholomew, K. & Horowitz, L.M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244.

Barkham, M., McGrath, G., Leah, C., Evans, C. & Margison, F. (2001). Service profiling and outcomes benchmarking using the CORE-OM: Toward practice based evidence in psychological therapies. *Journal of Consulting and Clinical Psychology*, 69, 184-196.



Berry, K. & Kingswell, S. (2012). An investigation of adult attachment and coping with exam-related stress. *British Journal of Guidance and Counselling*, 40, 315-325.

Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books

Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.

Berzins, J. I. (1977). Therapist-patient matching. In A. S. Gurman & A. M. Razin (Eds.), *Effective psychotherapy* (pp. 222–251). New York: Pergamon Press.

Berant, E. & Obegi, J.H. (2009) Attachment informed psychotherapy research with adults. In E. Berant & Obegi, J.H. (Eds.), *Attachment Theory and Research with clinical work with adults*. (pp 461-489). Guilford Press: London

Brennan, K.A., Clark, C.L., & Shaver, P.R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J.A. Simpson & W.S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford Press.

Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267\_283.

Cassidy, J., & Kobak, R. (1988). Avoidance and its relation to other defensive processes. In J. Belsky and T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 300-323). Hillsdale, NJ: Erlbaum.

Connors, M. E. (1997). The renunciation of love: Dismissing attachment and its treatment. *Psychoanalytic Psychology*, 14, 475–493.

Coolidge, F.L., Segal, D.L., Hook, J.N., & Stewart, S. (2000). Personality disorders and coping among anxious older adults. *Journal of Anxiety Disorders*, 14, 157–172.

Crittenden, P. M. (1997). Truth, error, omission, distortion, and deception: The application of attachment theory to the assessment and treatment of psychological disorder. In S. M. Clancy Dollinger & L. F. DiLalla (Eds.) *Assessment and intervention issues across the lifespan* (pp. 35–76). London: Erlbaum.

Cyranowski, J.M., Bookwala, J., & Feske, U. (2002). Adult attachment profiles, interpersonal difficulties and response to interpersonal psychotherapy in women with recurrent depression. *Journal of Social and Clinical Psychology*, 21, 191–217.

Dozier, M. (1990). Attachment organization and treatment use for adults with serious psychopathological disorders. *Development and Psychopathology*, 2, 47–60.

Dozier, M., Cue, K., & Barnett, L. (1994). Clinicians as caregivers: Role of attachment organization in treatment. *Journal of Consulting and Clinical Psychology*, 62, 793–800.

Eames, V., & Roth, A. (2000). Patient attachment orientation and the early working Alliance-A study of patient and therapist reports of alliance quality and ruptures. *Psychotherapy Research*, 10, 421–434.

Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardised brief outcome measure: psychometric properties and utility of the CORE-OM. *The British Journal of Psychiatry*, 180, 51–60.

Feeney, J. A., Noller, P., & Hanrahan, M. (1994). Assessing adult attachment. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp.128–152). New York: Guilford Press.

Finnegan, H., & Cameron, J.J. (2009). Orthogonal dreams in an oblique world: A meta-analysis of the relationship between anxiety and avoidance in the ECR and ECR-R.

Fonagy, P. (1998). An attachment theory approach to treatment of the difficult patient. *Bulletin of the Menninger Clinic*, 62, 147–169.

Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., Matton, G., et al. (1996). The relation of attachment status, psychiatric classification, and responses to psychotherapy. *Journal of Consulting and Clinical Psychology*, 64, 22–31.

Fraley, R.C., Waller, N.G., & Brennan, K.A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365.

Fraley, R.C., Heffernan, M.E., Vicary, A.M. & Brumbaugh, C.C. (2011). The Experiences in Close Relationships-Relationship Structures Questionnaire: A Method for Assessing Attachment Orientations Across Relationships. *Psychological Assessment*, 23, 615-625.

George, C., Kaplan, N., & Main, M. (1985). *The Berkeley Adult Attachment Interview*. Unpublished protocol, Department of Psychology, University of California, Berkeley.

Hardy, G. E., Aldridge, J., Davidson, C., Rowe, C., Reilly, S., & Shapiro, D. A. (1999). Therapist responsiveness to client attachment styles and issues observed in

client-identified significant events in psychodynamic-interpersonal psychotherapy.

*Psychotherapy Research*, 9, 36–53.

Hazan, C. & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.

Holmberg, D., Lomore, C., Takacs, T.A. & Price, L.E. (2011). Adults attachment styles and stressor severity as moderators of the coping sequence. *Personal Relationships*, 18, 502-517.doi:10.1111/j.1475-6811.2010.01318.x

John, O.P., & Srivastava, S. (1999).The big five trait taxonomy: History, measurement and theoretical perspectives. In L.A Pervin & O.P. John, (Eds.), *Handbook of Personality:Theory and Research* (2<sup>nd</sup> ed., pp. 102-138). New-York: Guilford.

Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer

Levy, K.N., & Kelly, K.M (2009). Using interviews to assess adult attachment , In *Attachment Theory and Research with clinical work with adults*.(pp 121-152). Guilford Press: London.

Liotti, G. (2002). Patterns of attachment and the assessment of interpersonal schemata: Understanding and changing difficult patient-therapist relationships in cognitive psychotherapy. In R. L. Leahy & E. T. Dowd (Eds.) *Clinical advances in cognitive psychotherapy: Theory and applications* (pp. 377–388). New York: Springer.

Kaninnen, K., Salo, J., & Punamaki, R. L. (2000). Attachment patterns and working alliance in trauma therapy for victims of political violence. *Journal of Therapy Research*, 10, 435–449.

- Main, M., & Goldwyn, R. (1984). *Adult Attachment Interview: Scoring and classification system*. Unpublished manuscript, University of California.
- Mallinckrodt, B., Coble, H. M., & Gantt, D. L. (1995). Working alliances, attachment memories, and social competencies of women in brief therapy. *Journal of Counselling Psychology*, 42, 79–84.
- McBride, C., Aitkinson, L., Quilty, L.C., & Bagby, R.M. (2006). Attachment as a moderator of treatment outcomes in major depression: A randomized control trial of interpersonal psychotherapy versus cognitive behaviour therapy. *Journal of consulting and clinical psychology*, 74, 1041-1054.
- Mikulincer, M. (1995). Attachment styles and the mental representation of self. *Journal of Personality and Social Psychology*, 69, 1203–1215.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment patterns in adulthood: Structure, dynamics, and change*. New York: Guilford Press.
- Noftle, E.E., & Shaver, P.R. (2006). Attachment dimensions and the Big Five personality Traits: Associations and comparative ability to predict relationship quality. *Journal of Research in Personality*, 40, 179-208. doi:10.1016/j.jrp.2004.11.03
- Norcross, J. C. (2002). *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients* New York, US: Oxford University Press.
- Pilkonis, P.A. (1988). Personality prototypes among depressives: Themes of dependency and autonomy. *Journal of Personality Disorders*, 2, 144—152.

Rubino, G., Barker, C., Roth, T., & Fearon, P., (2000). Therapist empathy and depth of interpretation in response to potential alliance ruptures: The role of therapist and patient attachment styles. *Psychotherapy Research*, 10, 407-415.

Shaver, P.R., & Brennan, K.A. (1992). Attachment style and the Big Five personality traits: Their connection with romantic relationship outcomes. *Personality and Social Psychology Bulletin*, 18, 536-545.

Shorey, H.S. & Snyder, C.R. (2006) The role of adult attachment styles in psychopathology and psychotherapy outcomes. *Review of General Psychology*, 10, 1-20. doi: 10.1037/1089-2680.10.1.1

Stiles, W. B., Agnew-Davies, R., Hardy, G. E., Barkham, M., & Shapiro, D. A. (1998). Relations of the alliance with psychotherapy outcome: Findings in the Second Sheffield Psychotherapy Project. *Journal of Consulting and Clinical Psychology*, 66, 791–802.

Strauss, D., Lobo-Drost, A., & Pilkonis, P.A., (1999) Assessment of attachment styles in adults. First experiences with a German version of the adult attachment prototype rating.

Tyrell, C. L., Dozier, M., Teague, G. B., & Fallot, R. D. (1999). Effective treatment relationships for persons with serious psychiatric disorders: The importance of attachment states of mind. *Journal of Consulting and Clinical Psychology*, 67, 725–733.

## 5. THESIS REFERENCES

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Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.

Alexander, R., Feeney, J., Hohaus, L., & Noller, P. (2001). Attachment style and coping resources as predictors of coping strategies in the transition to parenthood. *Personal Relationships*, 8, 137–152.

Barron, A.C. & Schwannauer, M. (2012) Unpublished Manuscript. *The role of patient and clinician attachment styles on the psychological therapy process: A systematic review*.

Barron, A.C. & Schwannauer, M. (2012). Unpublished Manuscript. *Attachment in psychological therapy: An exploratory study into patient and therapist attachment patterns on engagement and therapeutic alliance*.

Barkham, M., McGrath, G., Leah, C., Evans, C., & Margison, F. (2001). Service profiling and outcomes benchmarking using the CORE-OM: Toward practice based evidence in psychological therapies. *Journal of Consulting and Clinical Psychology*, 69, 184–196.

Bartholomew, K. & Horowitz, L.M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226–244.

Berant, E. & Obegi, J.H. (2009) Attachment informed psychotherapy research with adults. In E. Berant & Obegi, J.H. (Eds.), *Attachment Theory and Research with clinical work with adults*. (pp 461–489). Guilford Press: London

Berry, K. & Kingswell, S. (2012). An investigation of adult attachment and coping with exam-related stress. *British Journal of Guidance and Counselling*, 40, 315–325.

Berzins, J. I. (1977). Therapist-patient matching. In A. S. Gurman & A. M. Razin (Eds.), *Effective psychotherapy* (pp. 222–251). New York: Pergamon Press.

- Bodenmann, G. (2005). Dyadic coping and its significance for marital functioning. In T. A.
- Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 33–49). Washington, DC: American Psychological Association.
- Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.
- Brennan, K.A., Clark, C.L., & Shaver, P.R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J.A. Simpson & W.S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford Press.
- Carver, C. S. (1997a). Adult attachment and personality: Converging evidence and a new measure. *Personality and Social Psychology Bulletin*, 23, 865-883.
- Carver, C.S. (1997b). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioural Medicine*, 4, 92–100.
- Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267\_283.
- Connors, M. E. (1997). The renunciation of love: Dismissing attachment and its treatment. *Psychoanalytic Psychology*, 14, 475–493.
- Cassidy, J., & Kobak, R. (1988). Avoidance and its relation to other defensive processes. In J. Belsky and T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 300-323). Hillsdale, NJ: Erlbaum.
- Centre for Reviews & Dissemination: The University of York (2008). <http://www.york.ac.uk/inst/crd>.



Cohen, J. (1988). Statistical power analysis for the behavioural sciences (2<sup>nd</sup> ed., pp 247-248). Hillsdale, NJ: Lawrence Erlbaum Associates.

Coolidge, F.L., Segal, D.L., Hook, J.N., & Stewart, S. (2000). Personality disorders and coping among anxious older adults. *Journal of Anxiety Disorders*, 14, 157-172.

Crittenden, P. M. (1997). Truth, error, omission, distortion, and deception: The application of attachment theory to the assessment and treatment of psychological disorder. In S. M. Clancy Dollinger & L. F. DiLalla (Eds.) *Assessment and intervention issues across the lifespan* (pp. 35–76). London: Erlbaum.

Cyranowski, J.M., Bookwala, J., & Feske, U. (2002). Adult attachment profiles, interpersonal difficulties and response to interpersonal psychotherapy in women with recurrent depression. *Journal of Social and Clinical Psychology*, 21, 191-217.

Davis, D., Shaver, P. R., and Vernon, M. L. (2003). Physical, emotional, and behavioral reactions to breaking up: The roles of gender, age, emotional involvement, and attachment style. *Personality and Social Psychology Bulletin*, 29: 871–884.

DeFronzo, R., Panzarella, C., & Butler, A. C. (2001). Attachment, support seeking, and adaptive inferential feedback: Implications for psychological health. *Cognitive and Behavioral Practice*, 8(1), 48–52.

Dohrenwend, D. P. & Dohrenwend, D. S. (1974). Overview and prospects for research on

stressful life events. In: D.P. Dohrenwend and D.S. Dohrenwend (Eds), *Stressful Life Events Their Nature and Effects*. Wiley, New York.

Dozier, M. (1990). Attachment organization and treatment use for adults with serious psychopathological disorders. *Development and Psychopathology*, 2, 47–60.

Dozier, M., Cue, K., & Barnett, L. (1994). Clinicians as caregivers: Role of attachment organization in treatment. *Journal of Consulting and Clinical Psychology*, 62, 793–800.

- Eames, V., & Roth, A. (2000). Patient attachment orientation and the early working Alliance-A study of patient and therapist reports of alliance quality and ruptures. *Psychotherapy Research, 10*, 421-434.
- Evans, C., Connell, J., Barkham, M., Margison, F., MCgrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardised brief outcome measure: psychometric properties and utility of the CORE-OM. *The British Journal of Psychiatry, 180*, 51-60.
- Feeney, J. A., Noller, P., & Hanrahan, M. (1994). Assessing adult attachment. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp.128–152). New York: Guilford Press.
- Fonagy, P. (1998). An attachment theory approach to treatment of the difficult patient. *Bulletin of the Menninger Clinic, 62*, 147–169.
- Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., Matton, G., et al. (1996). The relation of attachment status, psychiatric classification, and responses to psychotherapy. *Journal of Consulting and Clinical Psychology, 64*, 22–31.
- Fraley, R.C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modelling of developmental mechanisms. *Personality and Social Psychology Review, 6*, 123-151.
- Fraley, R.C., Waller, N.G., & Brennan, K.A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology, 78*, 350\_365.
- Fraley, R.C., Heffernan, M.E., Vicary, A.M. & Brumbaugh, C.C. (2011). The Experiences in Close Relationships-Relationship Structures Questionnaire: A Method for Assessing Attachment Orientations Across Relationships. *Psychological Assessment, 23*, 615-625.
- Finnegan, H., & Cameron, J.J. (2009). Orthogonal dreams in an oblique world: A meta-analysis of the relationship between anxiety and avoidance in the ECR and ECR-R.

- George, C., Kaplan, N., & Main, M. (1985). *The Berkeley Adult Attachment Interview*. Unpublished protocol, Department of Psychology, University of California, Berkeley.
- Hardy, G. E., Aldridge, J., Davidson, C., Rowe, C., Reilly, S., & Shapiro, D. A. (1999). Therapist responsiveness to client attachment styles and issues observed in client-identified significant events in psychodynamic-interpersonal psychotherapy. *Psychotherapy Research*, 9, 36–53.
- Hazan, C. & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Higgins, J.P.T, & Green, S. (2009). Cochrane Handbook for Systematic Reviews of Interventions. (version 5.0.2). *The Cochrane Collaboration*. [www.cochrane-handbook.org](http://www.cochrane-handbook.org)
- Holmberg, D., Lomore, C., Takacs, T.A. & Price, L.E. (2011). Adults attachment styles and stressor severity as moderators of the coping sequence. *Personal Relationships*, 18, 502-517.doi:10.1111/j.1475-6811.2010.01318.x
- John, O.P., & Srivastava, S. (1999).The big five trait taxonomy: History, measurement and theoretical perspectives. In L.A Pervin & O.P. John, (Eds.), *Handbook of Personality: Theory and Research* (2<sup>nd</sup> ed., pp. 102-138). New-York: Guilford.
- Kaninnen, K., Salo, J., & Punamaki, R. L. (2000). Attachment patterns and working alliance in trauma therapy for victims of political violence. *Journal of Therapy Research*, 10, 435–449.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59, 135-146.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer

Levy, K.N., & Kelly, K.M (2009). Using interviews to assess adult attachment , In *Attachment Theory and Research with clinical work with adults*.(pp 121-152). Guilford Press: London.

Liotti, G. (2002). Patterns of attachment and the assessment of interpersonal schemata: Understanding and changing difficult patient-therapist relationships in cognitive psychotherapy. In R. L. Leahy & E. T. Dowd (Eds.) *Clinical advances in cognitive psychotherapy: Theory and applications* (pp. 377–388). New York: Springer.

Main, M., & Goldwyn, R. (1984). *Adult Attachment Interview: Scoring and classification system*. Unpublished manuscript, University of California.

Mallinckrodt, B., Coble, H. M., & Gantt, D. L.(1995). Working alliances, attachment memories, and social competencies of women in brief therapy. *Journal of Counselling Psychology*, 42, 79–84.

Marvin, R. S., & Britner, P. A. (1999). Normative development: The ontogeny of attachment. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 44-67). New York: Guilford

McBride, C., Aitkinson, L., Quilty, L.C., & Bagby, R.M. (2006). Attachment as a moderator of treatment outcomes in major depression: A randomized control trial of interpersonal psychotherapy versus cognitive behaviour therapy. *Journal of consulting and clinical psychology*, 74, 1041-1054.

Mikulincer, M. & Erev, E. (1991). Attachment style and the structure of romantic love, *British Journal of Social Psychology*, 30: 273-291.

Mikulincer, M., Florian, V., & Weller, A. (1993). Attachment styles, coping strategies, and posttraumatic psychological distress: The impact of the Gulf War in Israel. *Journal of Personality and Social Psychology*, 64, 817\_826.

Mikulincer, M. & Florian, V. (1995). Appraisal of and coping with a real-life stressful situation: The contribution of attachment styles. *Personality and Social Psychology Bulletin*, 21, 406–414.

Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 53–152). New York: Academic Press.

Mikulincer, M. (1995). Attachment styles and the mental representation of self. *Journal of Personality and Social Psychology*, 69, 1203–1215.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment patterns in adulthood: Structure, dynamics, and change*. New York: Guilford Press.

Norcross, J. C. (2002). *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients*. New York, US: Oxford University Press.

Noftle, E.E., & Shaver, P.R. (2006). Attachment dimensions and the Big Five personality Traits: Associations and comparative ability to predict relationship quality. *Journal of Research in Personality*, 40, 179-208. doi:10.1016/j.jrp.2004.11.03

Ognibene, T.C., & Collins, N.L. (1998). Adult attachment styles, perceived social support and coping strategies. *Journal of Personal and Social Relationships*, 15, 323\_345.

Petticrew, M. & Roberts, H. (2006). *Systematic Reviews in Social Sciences: A practical guide*. Blackwell: Oxford, UK.

Pilkonis, P.A. ( 1988). Personality prototypes among depressives: Themes of dependency and autonomy. *Journal of Personality Disorders* , 2, 144—152.

Risk, L., & Schwannauer, M. (2013). *Unpublished Manuscript*. The relationship between adult attachment style and coping response: A systematic review.

Rubino, G., Barker, C., Roth, T., & Fearon, P., (2000). Therapist empathy and depth of interpretation in response to potential alliance ruptures: The role of therapist and patient attachment styles. *Psychotherapy Research*, 10, 407-415.

- Schmitt, D.P., et al. (2004). Patterns and universals of adult romantic attachment across 62 cultural regions. *Journal of Cross-Cultural Psychology*, 35, 367-402.
- Schmidt, S., Nachtigall, C., Wuethrich-Martone, O., & Strauss, B., (2002). Attachment and coping with chronic disease. *Journal of Psychosomatic Research*, 50, 763-773.
- Schmidt, S., Blank, T.O., Bellizzi, K.M., & Park, C.L. (2012). The relationship of coping strategies, social support, and attachment style with posttraumatic growth in cancer survivors. *Journal of health Psychology*, 17, 1033-40.
- Scottish Intercollegiate Guidelines Network. Clinical Guidelines: criteria for appraisal for national use. Edinburgh: SIGN; 1995.
- Seiffge-Krenke, I. (1995). *Stress, Coping, and Relationships in Adolescence*. Erlbaum, Mahwah, NJ.
- Seiffge-Krenke, I. (2006). Coping with relationship stressors: The impact of different working models of attachment and links to adaptation. *Journal of Youth and Adolescence*, 35, 25-39.
- Shaver, P.R., & Brennan, K.A. (1992). Attachment style and the Big Five personality traits: Their connection with romantic relationship outcomes. *Personality and Social Psychology Bulletin*, 18, 536-545.
- Shaver, P.R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment and Human Development*, 4, 133-161.
- Shorey, H.S. & Snyder, C.R. (2006) The role of adult attachment styles in psychopathology and psychotherapy outcomes. *Review of General Psychology*, 10, 1-20. doi: 10.1037/1089-2680.10.1.1
- Solomon, Z. & Flum, H. (1986). Life events and combat reaction in the 1982 war in Lebanon. *Israel Journal of Psychiatry and Related Sciences*, 23: 08-16

Solomon, Z., Ginzburg, K., Mikulincer, M., Neria, Y., & Ohry, A. (1998) Coping with war captivity: the role of attachment style. *European Journal of Personality*, 12, 27-285.

Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development*, 50, 821-829.

Stiles, W. B., Agnew-Davies, R., Hardy, G. E., Barkham, M., & Shapiro, D. A. (1998). Relations of the alliance with psychotherapy outcome: Findings in the Second Sheffield Psychotherapy Project. *Journal of Consulting and Clinical Psychology*, 66, 791–802.

Strauss, D., Lobo-Drost, A., & Pilkonis, P.A., (1999) Assessment of attachment styles in adults. First experiences with a German version of the adult attachment prototype rating.

Tyrell, C. L., Dozier, M., Teague, G. B., & Fallot, R. D. (1999). Effective treatment relationships for persons with serious psychiatric disorders: The importance of attachment states of mind. *Journal of Consulting and Clinical Psychology*, 67, 725–733.

Vitaliano, P. P., Russo, J., Carr, J. E., Maiuro, R. D., & Becker, J. (1985). The Ways of Coping Checklist: Revision and psychometric properties. *Multivariate Behavioural Research*, 20, 3-26.

## APPENDICES

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# Critical Appraisal Rating Criteria

Appendix (i)

The Influence of Attachment Style on individual Coping Response

Rating Guidelines: 2 = fully addressed, 1 = partially addressed 0 = poorly addressed, not addressed, not available or not applicable (unless specified)

Quality Criteria ( and specific guidance)	0	1	2
Clear research aims and hypotheses (2); aims only (1); neither (0)			
Clear reporting of methodology allowing for replication of study			
Standardised and validated measure of adult attachment by four category prototype or two dimensions (2) or three category typology (1) non-standardized measure (0)			
How was adult attachment style measured; AAI (2); Self-reported measure (1) observational (0).			
Standardised and validated measure of coping style (2) partial use of validated coping measure (1) use of a non-standardised measure.			
How was coping style measured; As a dispositional measurement (2); in the context of a specific stressor (1) not clear (0).			
Design allows for causal inferences to be made; Prospective cohort design (2). Retrospective or cross sectional design(1) not clear (0).			
Clearly reported data analysis appropriate to research aims.			
Hypotheses discussed in light of data analysis			
Power calculation provided or sample size justified (2); power addressed with limited explanation (1); not addressed or reported by adequately powered (0) not adequately powered,			
External validity; ability to draw conclusions based on findings (2); findings suggestive although limited by bias (1) unable to draw conclusions due to potential bias and limitations.			

# Critical Appraisal Rating Criteria

Appendix (i)

## The Influence of Attachment Style on individual Coping Response

Rating Guidelines: 2 = fully addressed, 1 = partially addressed 0 = poorly addressed, not addressed, not available or not applicable (unless specified)

Quality Criteria ( and specific guidance)	0	1	2
Clear research aims and hypotheses (2); aims only (1); neither (0)			
Clear reporting of methodology allowing for replication of study			
Standardised and validated measure of adult attachment by four category prototype or two dimensions (2) or three category typology (1) non-standardized measure (0)			
How was adult attachment style measured; AAI (2); Self-reported measure (1) observational (0).			
Standardised and validated measure of coping style (2) partial use of validated coping measure (1) use of a non-standardised measure.			
How was coping style measured; As a dispositional measurement (2); in the context of a specific stressor (1) not clear (0).			
Design allows for causal inferences to be made; Prospective cohort design (2). Retrospective or cross sectional design(1) not clear (0).			
Clearly reported data analysis appropriate to research aims.			
Hypotheses discussed in light of data analysis			
Power calculation provided or sample size justified (2); power addressed with limited explanation (1); not addressed or reported by adequately powered (0) not adequately powered,			
External validity; ability to draw conclusions based on findings (2); findings suggestive although limited by bias (1) unable to draw conclusions due to potential bias and limitations.			



## **Patient Information Sheet**

### **Study: Exploring the role of adult relationship styles in psychological therapy**

We would like to invite you to take part in a research study being conducted in Lothian Psychological Services. Before you decide if you would like to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and to discuss it with somebody if you wish. Please take time to decide whether you wish to participate.

<b>Researchers:</b>	Lucie Risk (Tel. 0131 5376904)  Alison Barron (Tel. 0131 5376905)
<b>Study Supervisors:</b>	Dr Matthias Schwannauer (Tel. 0131 6513972)  Dr Richard Cosway (Tel. 0131 5376904)  Fiona Barry (Tel. 0131 5376905)
<b>Independent Contact:</b>	Heather Simpson (Tel. 0131 5378300)
<b>Research Sponsor:</b>	The University of Edinburgh
<b>Reviewed by:</b>	South East Scotland Research Ethics Committee <sup>1</sup>

Please ask the researchers any questions you have. You can phone and speak to us on the following numbers above. If your call cannot be taken, then you can leave a message and it will be returned.

## **What is the research about?**

This research has two aims.

1. To investigate how adult attachment style (how we relate to other people) affects engagement with psychological services.
2. To investigate how adult attachment style affects individuals recovery from mental health difficulties.

## **Why have I been asked to take part?**

We are asking all people who are in touch with NHS Lothian Psychological Services to take part in this study.

## **Do I have to take part?**

No. It is up to you to decide whether or not to take part. If you decide to take part we would like you to sign a consent form. The consent form is a way of making sure you know what you have agreed to. If you decide to take part you are still free to withdraw at any time and you do not have to give a reason.

**The support and help you receive from our service will not be affected if you decide at anytime you do not want to take part.**

## **What do I have to do?**

If you decide to take part, you will be given a series of questionnaires at different times during treatment. Some of these questionnaires are given routinely within the service and would be completed anyway. In addition to the routine questionnaires, you will be asked to complete four short questionnaires; two at the start of treatment (included in this pack), one at the 4<sup>th</sup> appointment and one at the end of treatment.

All of the questionnaires will be given to you by your psychologist/therapist. You will be asked to complete them in private and then return them in a sealed envelope provided. This will ensure your therapist does not see your responses. Each questionnaire will take approximately 5-10 minutes to complete. You can complete the questionnaires at the end of your appointment, or you can take them away to complete at home and return them at your next appointment.

Should any of the questionnaires cause you distress, then we would advise you to talk this through with your therapist. You can also contact one of the researchers for support.

The completed questionnaires will then be passed to the researchers. We will also collect information from your clinical file about the reason for referral, the number of appointments you attended, your age and your gender. We will not be collecting any information from notes taken during sessions with your psychologist.

\*For individuals who do not speak English as a first language, translation services will be available.

### **Will my taking part in this study be kept confidential?**

Yes. Given the way we have designed the study your psychologist will be aware of your participation but will not have access to your questionnaire responses. The questionnaires will be confidential and all data will be anonymised. If there is anything in the questionnaires that you feel would be useful to share with your psychologist, this can be arranged by contacting one of the researchers.

### **What are the possible benefits of taking part?**

The information gathered from this study will help clinical psychologists plan future research and contribute to the development of psychological services to help alleviate the distress of mental health difficulties.

### **What will happen to the results of the research study?**

We are happy to provide you with a summary of the results of the study. The final results and conclusions of the study will be shared through conferences and peer reviewed scientific journals. Your identification will not be included in any publication.

### **Who is organising and funding the research**

The research is being organised and funded by the University of Edinburgh in collaboration with NHS Lothian.

### **Who has reviewed the study?**

The research has been reviewed by and given managerial approval by the local Research and Development Departments in Lothian. It has also been reviewed by the Lothian Research Ethics Committee.

**Thank you very much for reading this and for any further involvement with this study.**



CONSENT FORM

**Study Title:** The role of adult relationship styles in psychological therapy  
**Name of Researchers:** Lucie Risk and Alison Barron

Please initial box

I confirm that I have read and understand the Participant Information Sheet (Version 2) dated 07.07.2011 for the above study and have had the opportunity to ask questions. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason, without my medical care or legal rights being affected. ☐

I understand that the information obtained from all measures that I complete as part of the research study will be anonymised. ☐

I understand that my psychologist will not see questionnaires relating to how I view therapy and our relationship. ☐

I understand that this research may be published, and that participation will be anonymised. ☐

I agree to take part in the above study. ☐

I agree to the information being collected from my clinical file. ☐

I would like to request a copy of the summary of the results of this study. ☐

I understand that relevant sections of my medical notes and data collected during the study may be looked at by the researchers and individuals from the Sponsor, regulatory authorities or from NHS organisation, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records. ☐

\_\_\_\_\_  
Name of participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

05 August 2011

Dr Matthias Schwannauer  
Director of Doctoral Clinical Psychology  
Course  
University of Edinburgh  
Department of Health & Clinical Psychology  
School of Health in Social Science  
Medical School, Teviot Place

Enquiries Emily Pendleton  
Direct Line 0131 465 5676  
emily.pendleton@nhslothian.scot.nhs.uk

Dear Dr Schwannauer

**Full title of study:** Attachment, alliance and outcomes in psychological  
therapy

**REC reference number:** 11/AL/0375

Thank you for your letter of 5 August 2011. I can confirm the REC has received the documents listed below as evidence of compliance with the approval conditions detailed in our letter dated 3 August 2011. Please note these documents are for information only and have not been reviewed by the committee.

**Documents received**

The documents received were as follows:

Document	Version	Date
Participant Information Sheet	2	5/08/11
Participant Consent Form	2	5/08/11

You should ensure that the sponsor has a copy of the final documentation for the study. It is the sponsor's responsibility to ensure that the documentation is made available to R&D offices at all participating sites.

**11/AL/0375** Please quote this number on all correspondence

Yours sincerely

Emily O'Connor

Headquarters  
2-4 Waterloo Place, Edinburgh EH1 3EG

Chair Dr Charles J Winstanley  
Chief Executive Professor James J Barbour O.B.E.  
Lothian NHS Board is the common name of Lothian Health Board





- Therapist consent form – add name and signature of researcher to the bottom of the form
- PIL- Independent adviser should provide office phone number rather than personal mobile number

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. Confirmation should also be provided to host organisations together with relevant documentation.

## Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Covering Letter		
Interview Schedules/Topic Guides		02 June 2011
Investigator CV		
Letter of invitation to participant	1	02 June 2011
Other: WAI		
Participant Consent Form	1	02 June 2011

05 August 2011

Dr Matthias Schwannauer  
Director of Doctoral Clinical Psychology  
Course  
University of Edinburgh  
Department of Health & Clinical Psychology  
School of Health in Social Science  
Medical School, Teviot Place

Enquiries Emily Pendleton  
Direct Line 0131 465 5676  
[emily.pendleton@nhslothian.scot.nhs.uk](mailto:emily.pendleton@nhslothian.scot.nhs.uk)

Dear Dr Schwannauer

**Study title:** Attachment, alliance and outcomes in psychological therapy  
**REC reference:** 11/AL/0375

Thank you for your letter of date 28 July 2011, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered in correspondence by a sub-committee of the REC at a meeting held on 3 August 2011. A list of the sub-committee members is attached.

#### Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation [as revised], subject to the conditions specified below.

#### Ethical review of research sites

##### NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

##### Non-NHS sites

#### Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.



Headquarters  
2-4 Waterloo Place, Edinburgh EH1 3EG

Chair Dr Charles J Winstanley  
Chief Executive Professor James J Barbour O.B.E.  
Lothian NHS Board is the common name of Lothian Health Board

# University Hospitals Division

Queen's Medical Research Institute  
47 Little France Crescent, Edinburgh, EH16 4TJ

CPP/KB/approval

04/08/2011

Dr Matthias Schwannauer  
Clinical and Health Psychology  
School of Health in Social Science  
Medical School, Teviot Place  
Edinburgh



Research & Development  
Room E1.12  
Tel: 0131 242 3330  
Fax: 0131 242 3343

Email: R&DOffice@luht.scot.nhs.uk

Director: Professor David E Newby

Dear Dr Schwannauer,

Lothian R&D Project No: **2011/P/PSY/14**

**Title of Research:** Attachment, alliance and outcomes in psychological therapy

**REC No:** 11/AL/0375

**CTA No:** N/A

**Eudract:** N/A

**PIS:** Version 1 dated 30 May 2011

**Consent:** Version 1 dated 30 May 2011

**Protocol No:** Version 1 dated 30 May 2011

I am pleased to inform you that this study has been approved for NHS Lothian and you may proceed with your research, subject to the conditions below. This letter provides Site Specific approval for NHS Lothian.

Following a Research Ethics Committee final favourable opinion, final copies of all project documentation (with revised version numbers) should be sent, with the Research Ethics Committee letter of favourable opinion, to the R&D office. Management approval will only be valid after favourable opinion has been received.

Following funding award, confirmation of award should be sent to the R&D Office. Management approval will only be valid after the funding award confirmation has been received.

Please note that the NHS Lothian R&D Office must be informed if there are any changes to the study such as amendments to the protocol, recruitment, funding, personnel or resource input required of NHS Lothian. This includes any changes made subsequent to management approval and prior to favourable opinion from the REC.

Substantial amendments to the protocol will require approval from the ethics committee which approved your study and the MHRA where applicable.

Please inform this office when recruitment has closed and when the study has been completed.

I wish you every success with your study.

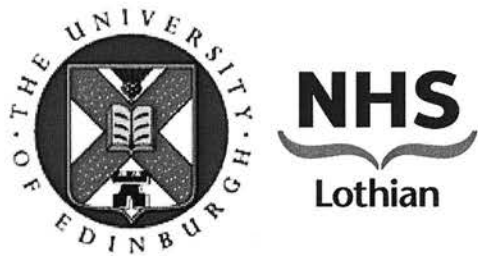
Yours sincerely

A handwritten signature in cursive script, appearing to read 'CP Phillips'.

Dr Christine P Phillips  
Deputy R&D Director

enc

Tissue Policy (if applicable)



**THERAPIST CONSENT FORM**

**Study:** Attachment, Alliance & Outcomes in Psychological Therapy

**Name of Researchers:** Lucie Risk and Alison Barron

**Please initial box**

I confirm that I have been provided with an overview for the above study and have had the opportunity to ask questions. ☐

I understand that my participation in this study is voluntary. ☐

I understand that this research may be published, and that participation will be anonymised. ☐

I agree to take part in the above study. ☐

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

## *Language (usage and editing services)*

Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop <http://webshop.elsevier.com/languageediting/> or visit our customer support site

<http://support.elsevier.com> for more information.

## *Submission*

Submission to this journal proceeds totally online and you will be guided stepwise through the creation

and uploading of your files. The system automatically converts source files to a single PDF file of the

article, which is used in the peer-review process. Please note that even though manuscript source

files are converted to PDF files at submission for the review process, these source files are needed for

further processing after acceptance. All correspondence, including notification of the Editor's decision

and requests for revision, takes place by e-mail removing the need for a paper trail.

## **PREPARATION**

### *Use of wordprocessing software*

It is important that the file be saved in the native format of the wordprocessor used. The text should

be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes

will be removed and replaced on processing the article. In particular, do not use the wordprocessor's

options to justify text or to hyphenate words. However, do use bold face, italics, subscripts,

superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each

individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns.

The electronic text should be prepared in a way very similar to that of conventional manuscripts

(see also the Guide to Publishing with Elsevier:

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source files of figures, tables and text graphics will be required whether or not you embed your figures

in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check'

functions of your wordprocessor.

### *Article structure*

Manuscripts should be prepared according to the guidelines set forth in the Publication Manual of

the American Psychological Association (6th ed., 2009). Of note, section headings should not be

numbered.

Manuscripts should ordinarily not exceed 50 pages, *including* references and tabular material.

Exceptions may be made with prior approval of the Editor in Chief. Manuscript length can often be

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managed through the judicious use of appendices. In general the References section should be limited to citations actually discussed in the text. References to articles solely included in meta-analyses should be included in an appendix, which will appear in the on line version of the paper but not in the print copy. Similarly, extensive Tables describing study characteristics, containing material published elsewhere, or presenting formulas and other technical material should also be included in an appendix. Authors can direct readers to the appendices in appropriate places in the text. It is authors' responsibility to ensure their reviews are comprehensive and as up to date as possible (at least through the prior calendar year) so the data are still current at the time of publication.

Authors are referred to the PRISMA Guidelines (<http://www.prisma-statement.org/statement.htm>) for guidance in conducting reviews and preparing manuscripts. Adherence to the Guidelines is not required, but is recommended to enhance quality of submissions and impact of published papers on the field.

## *Appendices*

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

## *Essential title page information*

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Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid

abbreviations and formulae where possible. **Note: The title page should be the first page of the manuscript document indicating the author's names and affiliations and the corresponding author's complete contact information.**

*Author names and affiliations.* Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author within the cover letter.

*Corresponding author.* Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

*Present/permanent address.* If an author has moved since the work described in the article was done, or was visiting at the time, a "Present address" (or "Permanent address") may be indicated



as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

## *Abstract*

A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

## *Graphical abstract*

A Graphical abstract is optional and should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership online. Authors must provide images that clearly represent the work described in the article. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. See <http://www.elsevier.com/graphicalabstracts> for examples. Authors can make use of Elsevier's Illustration and Enhancement service to ensure the best presentation of their images also in accordance with all technical requirements: Illustration Service.

## *Highlights*

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). See <http://www.elsevier.com/highlights> for examples.

## *Keywords*

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

## *Abbreviations*

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

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## *Acknowledgements*

Collate acknowledgements in a separate section at the end of the article before the references and do

not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those

individuals who provided help during the research (e.g., providing language help, writing assistance

or proof reading the article, etc.).

## *Footnotes*

Footnotes should be used sparingly. Number them consecutively throughout the article, using

superscript Arabic numbers. Many wordprocessors build footnotes into the text, and this feature may

be used. Should this not be the case, indicate the position of footnotes in the text and present the

footnotes themselves separately at the end of the article. Do not include footnotes in the Reference

list.

## *Table footnotes*

Indicate each footnote in a table with a superscript lowercase letter.

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### *General points*

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
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A detailed guide on electronic artwork is available on our website:

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**You are urged to visit this site; some excerpts from the detailed information are given here.**

## *Formats*

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then

please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is

finalized, please 'Save as' or convert the images to one of the following formats (note the resolution

requirements for line drawings, halftones, and line/halftone combinations given below):

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TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.

TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.

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- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;



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- Submit graphics that are disproportionately large for the content.

## *Color artwork*

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color on the Web (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive**

**information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or on the Web only. For further information on the

preparation of electronic artwork, please see

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Please note: Because of technical complications which can arise by converting color figures to 'gray

scale' (for the printed version should you not opt for color in print) please submit in addition usable

black and white versions of all the color illustrations.

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## *Figure captions*

Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A

caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep

text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

## *Tables*

Number tables consecutively in accordance with their appearance in the text. Place footnotes to tables

below the table body and indicate them with superscript lowercase letters. Avoid vertical rules. Be

sparing in the use of tables and ensure that the data presented in tables do not duplicate results

described elsewhere in the article.

## *References*

Citations in the text should follow the referencing style used by the American Psychological

Association. You are referred to the Publication Manual of the American Psychological Association,

Sixth Edition, ISBN 1-4338-0559-6, copies of which may be ordered from

<http://books.apa.org/>

[books.cfm?id=4200067](http://books.cfm?id=4200067) or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3

Henrietta Street, London, WC3E 8LU, UK. Details concerning this referencing style can also be found

at <http://humanities.byu.edu/linguistics/Henrichsen/APA/APA01.html>

## *Citation in text*

Please ensure that every reference cited in the text is also present in the reference list (and vice

versa). Any references cited in the abstract must be given in full. Unpublished results and personal

communications are not recommended in the reference list, but may be mentioned in the text. If these

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references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

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